

DE BOW'S REVIEW.

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ART. I.—GENERAL LEE AS A TEACHER.

BY WILLIAM M. BURWELL.

The recent visit of Gen. Lilly on behalf of the Washington College, of which Gen. Lee is principal, has presented that patriot in a new light. He is now the teacher of the people with whom, and for whom, he has suffered. Ambitious men, who have lost a cause, usually dedicate the rest of their lives to writing memoirs, in which they malign all who opposed them, and demonstrate how, but for the failure of some division to come up at a critical moment, or the criminal desertion of some traitor, the unfortunate hero would have executed his plans. In a word, ambitious men are intensely selfish, and when defeated themselves they lose all interest in the welfare of others. Gen. Lee was never ambitious of personal glory. He accepted a service at the call of a State whose authority over her sons was, in his opinion paramount. Having performed this duty without reproach, the same filial obedience restrained him from deserting the people he had led. He has never evaded the responsibilities which Virginia incurred. He never fled into exile nor sank into subservience. He now dedicates his character and his experience

to repairing the misfortunes which he could not avert.* Any Southern man who will look back with the little lamp of his own personal experience will see that there has been one fatal obstacle to the Southern States retaining their relative influence in a growing country. The statesmen of the South were averse to the development of those elements of mixed industry which alone employ a whole people and enable society to capitalize its earnings. Southern statesmen relied on agriculture alone, and on slave labor, to maintain the welfare of society. Southern statesmen did not care for shipping, or for mining, or for manufactures. They relied on the sacred record of State compact to secure the rights of the several States. They depended on distant merchants, mariners, and manufacturers to supply all their wants. Their construction of the Federal compact was, in our opinion, correct; their error was in supposing it could be maintained by words. In their just hostility to the liberal construction of the Federal Constitution, which gave the Federal Government the power to protect manufactures or to build roads, they unconsciously extended their opposition to both these great interests. The true reason why the Southern States have ports without ships, ores without operatives, and water power without waterworks, is because Southern legislators took no interest in the development of these interests. It is because few Southern statesmen from the days of Washington, Marshall, and Jefferson, have taken any interest in training the people of the South to any other pursuit save that of agriculture.

To say that the Southern people were the sole branch of the great Anglo-Saxon family incapable of pursuing all the industrial arts, would be contradicted by the history of Georgia and by the extraordinary development of these interests during the military and social necessities of the late civil war. They labor under no mental or moral disabilities. The want of instruction and encouragement has been the sole bar to Southern enterprise. Of course, the want

*It has not been thus with all our Southern leaders. Soon after the war we were urging upon one formerly very prominent in politics, the importance of material development as a means of employment for the Southern people. He would not listen. "No," said he, "I have not the means to support myself, and I am done with public affairs." It was replied: "The people of your State took you from obscurity, they successively raised you to some of the highest offices in their gift. We taught them the doctrine which has cost them liberty and property. Do you now propose to desert them?" He afterwards wandered into exile, returned and died at home.

of instruction has comprehended the whole difficulty. Our colleges were dedicated to instruction in the classics, in belles lettres, in rhetoric, in mathematics, in abstract philosophy. To these were added lectures on natural philosophy. The University of Virginia alone completed the circle of science and literature. A graduate, with the diploma of that school, was educated for any profession, save, that as a physician, he would be the better of a clinical course in the schools of New York or New Orleans. But until since the war, there were few schools of practical civil engineering, and none, we think, of navigation in the whole South, except the national school at Annapolis. Hence the South never utilized the whole intellectual capacity of its people. The mind power wasted was worth far more than the water power and minerals, of which we have heard so much, for these last are nothing without educated intelligence. We know very well—none better—that of which we write. The youth of the South were taught in the curriculum of which we have spoken. The very small per centage which is fit for success in the learned professions were set apart for that purpose. With very many these professions were a preparatory school for politics, which absorbed a large proportion of the educated attorneys and physicians. If we allow twenty per cent. of the youth annually educated for those who succeed in professions, it is, in our opinion a fair estimate. What, let us ask, did the South do with the other eighty per cent. ? It is very true that they made better and more intelligent cotton planters and voters, but how were they worth more than as many hard-handed laborers ? Those men would have made the merchants and navigators, with their thousands of ships and sailors ; they would have made the master manufacturers and ship-builders ; the architects and the railroad contractors. The principal and subordinate departments of these industries would have employed the youth of the South profitably and honorably. They would have strengthened the South, as similar men, conducting similar interests, strengthen and dignify England and France. But if the young men of the South, educated for professions, were not successful in those pursuits, it by no means followed that they could not have pursued agriculture to more advantage. Many of them were younger sons, who had a position to sustain in society, without adequate means. Society would not tolerate their working in the field

with the slaves, and society had not furnished for these young men any other employment. What were they to do? Many emigrated from the Southern Atlantic States and planted themselves in Ohio and the Northwest; many more, at a later day, to the Southern States and to Texas, before it had been admitted into the Union. Of these men it may be said that they held the foremost rank. We may mention W. H. Harrison, Zachary Taylor, and Samuel Houston as types of the class that emigrated from the Southern Atlantic States because they could do better elsewhere. If any reader will think over the Federal soldiers in the late war whose ancestors came from the South—if any realize the fact that the conquest of the South came from the region won and planted by the South, they may realize what the want of varied employments, suited to the capacity of all, has occasioned our unfortunate country. There can be no better occasion to vindicate Southern youth from the unjust and injurious aspersions cast upon their alleged want of energy. There was a long period in Virginia when the young men who did not enjoy the means of agricultural prosperity were compelled to do as the cadets of all impoverished countries have done. We well remember when the unemployed young men of Virginia were engaged almost exclusively in politics, on their own account, or as neophytes or strikers for others. They had an indefinite idea that it might lead to office, or they wrote, rode, spoke, and fought duels for their friends, and so contracted the disease of chronic politics, which is many degrees worse in its consequences than inflammatory rheumatism. Some, to fill gaps in their time, or income, resorted to the race course, and, by an easy gradation, to the gaming table. We have known estimable young men, from the mere failure of the statesmen to provide them employment adequate to support their positions, become professional gamblers. They maintained their association with respectable society. Society itself recognized racing as a business pursuit. One of the most eminent men that Virginia has produced was Wm. R. Johnson, Esq., the turf Napoleon of his day. He was a man of great ability, acquired a large fortune by running and breeding horses, and represented a district in the Senate whenever his party could prevail on him to run. Suppose this ability had been employed by his native State in commerce. Would not Virginia have had her Vanderbilt or her Morgan? Is there anything more difficult in the

organization of sail or steam lines than in the arduous and perilous vocation of raising and running horses? If he had undertaken manufacturing, was there any bar to his achieving the same success with Lawrence? Might not such men have managed coal mines, and iron foundries, and forges as well as they did race horses or cotton plantations? But the success and example of a man so extraordinary as Wm. R. Johnson misled thousands of youth; the intellect and energy of the country was long turned to the pedigree, or the time, of race horses. The advance in the profits of cotton culture turned a great deal of energy from the old to the new States of the South, while the temporary advance in the value of slave property relieved the wants of society or enabled it to carry the unemployed youth without complaint. Besides, the common staples of Virginia became more valuable, and a considerable class of young men, especially in the Piedmont counties, began to apply mechanical and chemical science to agriculture. We doubt whether a system of culture better adapted to the physical traits of a locality was ever invented than that under which the Randolphs, Rives, Gilmers, Minors, Garths, Ruffins, Farrisses, and others, have converted Albemarle county from a worn out and abandoned tobacco field into one of the most beautiful, delightful, and profitable regions in America. These facts prove that the failure of Southern young men to redeem the usefulness for which they are so well adapted is the fault of Southern statesmen—so-called—who have never provided for them the education, the resources, or the example necessary to qualify them for the various pursuits for which nature had so well qualified them. If any further indications of the native energy and resources of Southern youth be asked for, it will be found in their courage and endurance during the war, and in their industry and sobriety now.

Gen. Lee proposes a change in this system of Southern education. He appreciates the invaluable importance of the knowledge which will make first class divines, lawyers, physicians, and soldiers; but goes further: he proposes to utilize the eighty per cent. of non-professional youth educated in the South. He wishes to see if in working over the rich and refused scoria and dross of intellect he cannot extract a large amount of those precious qualities of which the South stands so deplorably in need at present. He is a statesman who has stood by his country in her worst trouble, and does

not forget her miseries to weep over his own misfortune. He is an alchemist, who proposes to distil through the alembic of misfortune the elixir of freedom and happiness. May he live to succeed, and he will have won the lost cause in the freedom and happiness of the South, redeemed and perpetuated through the education of her sons.

We publish in full, as most explanatory of his purposes, the plan submitted to Gen. Lee by a committee composed of most intelligent and practical gentlemen. It will be found to cover the whole ground of polytechnic instruction and physical development of our natural resources. The report is headed a "Plan for the Extension of the Scientific and Practical Departments of Washington College, Virginia :"

WASHINGTON COLLEGE, January 8th, 1869.

To General R. E. Lee, President :

Dear Sir.—The Departments of Applied Science should be so organized as to give thorough instruction in, 1st. Agriculture ; 2d. Commerce ; 3d. Civil and Mechanical Engineering ; 4th. Mining and Applied Chemistry. And these professional courses should respectively embrace the following subdivisions or subjects of study :

I. COURSE OF AGRICULTURE,

consisting of : 1st. Vegetable and Animal Anatomy and Physiology, or the laws of nutrition, growth and health of plants and animals ; 2d. Descriptive Botany and Zoology ; 3d. Zootechny, or the raising, improvement and management of the domestic animals ; 4th. Arboriculture, horticulture and agriculture ; 5th. Pomology, or the culture of fruits, making of wine, cider, vinegar, etc. ; 6th. Geometry, linear drawing and land surveying ; 7th. Rural Engineering, or mechanics and geometry applied to the construction and use of agricultural implements and machines, building, walls and fences, also to road-making, draining and irrigation ; 8th. Rural Economy, or book-keeping, arithmetic, etc., applied to form accounts and management ; 9th. Penmanship ; 10th. The law of titles, contracts and accounts ; 11th. The preparation of manures and composts ; 12th. Elementary Chemistry, and Chemistry applied to the analysis and fertilization of soils ; 13th. The use of tools practically taught.

II. COURSE OF COMMERCE,

consisting of ; 1st. Mathematics of accounts, exchange, insurance, annuities, compound interest, etc. ; 2d. Geometry and drawing ; 3d. Book-keeping and penmanship ; 4th. Commercial correspondence, and the correct use of the English language ; 5th. Geography applied to production and commerce ; 6th. Commercial Technology, or the

productions of mechanical and chemical manufactures as articles of trade ; 7th. The elements of commercial law, or law of bills, notes, contracts, insurance, corporations, bailments, shipping, etc.; 8th. Commercial Economy, or the administration and financial management of commercial enterprises, banks, insurance and joint stock companies, railroads, canals, ships, steamers, telegraphs, etc.; 9th. Commercial History and Biography ; 10th. Modern Languages.

III. CIVIL AND MECHANICAL ENGINEERING.

This School should embrace two distinct courses : 1st. Civil Engineering ; 2d. Mechanical Engineering ; sub-divided into subjects as follows :

Course of Civil Engineering.—To comprise : 1st. Mathematics, pure and applied ; 2d. Descriptive Geometry and Stereotomy ; 3d. Linear, perspective and topographical drawing ; 4th. Chemistry ; 5th. General and industrial physics ; 6th. Rational and Applied Mechanics ; 7th. Cinematics, or the principles of mechanism ; 8th. Land, topographical and geodetical surveying ; 9th. Levelling, and the location of roads, canals, etc.; 10th. Elementary and Spherical Astronomy ; 11th. Construction of roads, railroads, canals, bridges, arches, culverts, aqueducts, etc.; 12th. Mortars, cements and building materials ; 13th. Strength and resistance of materials ; 14th. Carpentry and Masonry ; 15th. Structures in iron and other metals ; 16th. Hydraulic Engineering, applied to the supply of water by reservoirs, aqueducts, pipes, etc., also, to the improvement of rivers and channels, levees, canals, dams, harbors, docks, coast-works, etc.; 17th; Industrial Geology and Metallurgy ; 18th. The use of tools practically taught ; 19th. History, theory and practice of Architecture ; 20th. Industrial Economy, or the development and administration of railways, canals, manufactories, etc.; 21st. French and English composition.

Course of Mechanical Engineering.—To embrace : 1st Mathematics, pure and applied ; 2d. Descriptive Geometry and drawing ; 3d. Chemistry ; 4th. General and industrial physics ; 5th. Rational and Applied Mechanics ; 6th. Cinematics, or the principles of mechanism ; 7th. Strength and resistance of materials ; 8th. Mortars, cements, and building materials ; 9th. Carpentry and masonry ; 10th. Architecture ; 11th. Structures in iron and other metals ; 12th. Construction of steam engines and locomotives ; 13th. Construction of mills, factories, water-wheels, etc.; 14th Construction of machines, tools, agricultural implements, etc.; 15th. Metallurgy and industrial geology ; 16th. The use of tools practically taught ; 17th. Economy of machinery and manufactures ; 18th. French and English composition.

IV. MINING ENGINEERING AND APPLIED CHEMISTRY.

In this School there should be also two separate courses ; 1st. Of Mining and Metallurgy ; 2d. Of Chemistry applied to the Arts :

Course of Mining and Metallurgy.—To consist of : 1st. Mathematics, pure and applied ; 2d. Descriptive geometry and drawing ;

3d. Chemistry ; 4th. General and industrial physics ; 5th. Rational and Applied Mechanics ; 6th. Strength and resistance of materials ; 7th. Mortars, cements and building materials ; 8th. Carpentry and masonry ; 9th. Structures in iron and other metals ; 10th. Cinematics, or principles of mechanism ; 11th. Use of tools and chemical manipulation ; 12th. Construction of steam engines, and of mining and metallurgic machines ; 13th. Working or exploration of mines ; 14th. The manufacture of iron, steel, etc. ; 16th. Construction and use of furnaces, crucibles, etc. ; 17th. Metallurgy and industrial geology ; 18th. Mineralogy and Crystallography ; 19th. Docimasy, and the analysis of ores, minerals, etc., by the wet method ; 20th. Economy and management of mining and metallurgic enterprise ; 21st. French and English composition.

Course of Chemistry Applied to the Arts.—To consist of : 1st. Elementary Mathematics ; 2d. Linear drawing ; 3d. General and analytical Chemistry ; 5th. Mineralogy and Crystallography ; 6th. Industrial Geology and Metallurgy ; 7th. Botany, Zoology and Comparative Anatomy ; 8th. Physiological Chemistry, vegetable and animal ; 9th. The use of the mouth blow-pipe ; 10th. Glass blowing, with the enameller's lamp ; 11th. The use of tools, practically taught ; 12th. Photography ; 13th. Chemical Technology, or the manufacture of acids, alkalies, glass, pottery, illuminating gas and oils, soap, paints, varnishes, dyes, drugs, fermented and distilled liquors, vinegar, sugar, starch, bread, gelatine, leather, etc. ; 14th. Economy and management of chemical manufactures.

Students who complete either of the above courses will receive professional diplomas, equivalent to those of Civil and Mining Engineer, already established. And those who, for want of time, or other reason, shall study part of either course, will receive certificates of progress or proficiency for such part.

It is very important that the instruction in these professional courses be made as practical as possible ; and, to that end, that there be annexed to these departments a farm and garden, a mechanical workshop, and a laboratory or workshop for metallurgic and chemical operations. The students can then perform such work and examine such operations as their studies may demand. This work may, and should be, made remunerative, at least sufficiently so to prevent said farm and workshops from being an expense and a burden to the funds of the college.

The farm and garden, rightly managed, by a skilful superintendent, should, at least, pay expenses. The mechanical workshop, in which agricultural and other implements may be made, should defray its expenses. And even the laboratory, if judiciously conducted, may be, if not self-sustaining, a source of but little expense, instead of requiring heavy appropriations and fees to pay for costly experiments and destroyed apparatus ; which has been the difficulty generally encountered in imparting instruction in practical chemistry to young and unskilful beginners—a difficulty which has often compelled this mode of instruction, confessedly the best, to be reluctantly abandoned, even in institutions amply endowed.

In the mechanical studies a large portion of time should be given to the neat and exact execution of working drawings of machines, masonry, carpentry, etc., without skill in which essential labor no one is qualified to take charge of works of construction, or superintend industrial establishments in such a manner as is called for by the present advanced state of the arts.

Respectfully submitted by

R. S. McCULLOCH,

A. L. NELSON,

WM. PRESTON JOHNSON,

J. L. CAMPBELL,

WILLIAM ALLAN.

} Committee.

ART. II.—IRON BOATS AND BARGES.

INTERESTING COMMUNICATIONS ON THE SUBJECT.—LETTERS FROM JAS. B. EADS, ESQ.,

CHIEF ENGINEER ILLINOIS AND ST. LOUIS BRIDGE COMPANY.

We have noted with much interest the complaints made by the shipwrights of Maine and Massachusetts on the decline of American tonnage. We are very certain these complainants do not comprehend the causes of that decline. They persist in attributing it to the depredations of what they are pleased to miscall the "piratical" cruisers of a lawful belligerent during the late civil war. We will not quarrel about the terms applied, since he who conquers in a fight acquires thereby the right to fasten upon the defeated whatever nickname may be chosen. The Scotch people who, in 1715 and 1745, endeavored to secede from an union to which they had never been parties, struck for the independent nationality of Scotland. Her dynasty, her regalia, her constitution were at stake. She lost, and the "rebels" of Culloden and Preston Pans were hung and their estates confiscated. Many were transported to America, founding some of the best families among us, and we even occasionally see their names among the conquerors of the South. The Irish have made a similar effort to secede, with a similar result. From Emmet to John Mitchell, they have been branded as rebels, and punished with the extreme rigor of the law of conquest. So we do not complain, as it no more hurts one's character to be called a rebel, than to be dubbed a heretic for a simple difference of religious opinion. But these shipwrights are in error when they attribute the decline of American shipping to the Confederate cruisers. The growth of

shipping depends on home freights. American tonnage will be found to have grown ton for ton with the growth of American cotton. It will be found to have fallen off in the same ratio. A crop of four and a half million of bales supported, in 1860, a tonnage of four million tons. A crop of two and a half million of bales, in 1868, supports a tonnage of two and a third million of tons.

England, on the contrary, had nearly the same tonnage with the United States before the war. It has now reached seven millions of tons, or more than three times the present American tonnage. In the meantime, England has changed places with the United States in regard to cotton. She imported, in 1860, three out of every eight bales from countries other than the United States. This is exactly reversed. England has laid down some five thousand miles of railroad in British East India. The cotton produced in India has been transported in British ships and paid for in British goods. This railroad iron has been made by British hands, and freighted in British ships. These are the causes of the decline of American tonnage, and of the immense advance of British tonnage. These are the consequences of our civil war. These are the fruits of emancipation, of confiscation and of the political war of reconstruction. We are not complaining of these things, but we cite them as the causes of indirect and almost irreparable injury to a great American interest. We cite them as reasons why men should abandon nicknames and look to some rational means of repairing an important national interest.

The shipwrights of Maine and Massachusetts seem to think that a little more protection, in the shape of a drawback on all foreign materials which enter into the composition of an American ship, is all that is necessary to regain our former position in ship building. We have no hope from this source. If American shipping, long protected by a tonnage tax on foreign shipping and a bounty on the fishing interest, having now the exclusive coast trade between New York and California, cannot sustain itself, it is not probable that even that elixir of life, the tariff, will prolong its days. Suppose we present another prospect to the American mariner. The days of wooden and sail vessels seem numbered. A very large proportion of the commerce of the world is now conducted by steamships. Iron is now preferred to wood. Now, in this new era, it is plain that Massachusetts and Maine, importing their coal, iron,

food, and live oak from the interior and coast, cannot compete with the shipbuilders of foreign countries. If, then, ships must be built of iron, and navigated by steam, why not transfer the shipyards of Massachusetts and Maine to the Valley of the Mississippi? It is so much easier to send the carpenters and machinists, with their families, to Cincinnati, Chicago, and St. Louis than to be eternally sending all raw material to Maine and Massachusetts. And then we know that it is all the same nation now, and that Massachusetts and Maine would just as soon the national flag should float out of the Mississippi as from Muscongus or Massachusetts bays.

We are led to this rather extended preface by the new iron and coal interests which have sprung up in the West under the extraordinary energy manifested by those who have devoted themselves to the development of this great American enterprise. The machinists and shipbuilders who built the Thompson Dean, the Frank Pargoud, and the Robert E. Lee are equal to any demand which modern science may make upon them. The coal and iron mines of Missouri, the coal, and iron, and machine shops of Cincinnati and Pittsburg can build ocean steamers as well as river steamers, and the workshops of New Orleans, furnished with the Western material, can construct, and keep in repair this mercantile marine. Here, then, is to be the future nursery and home of the steam marine of the nation. Let us prepare for it.

We should scarcely have ventured to express these convictions but for the intelligent exposition of the iron barge question which was presented to the late Commercial Convention at New Orleans, and which caused the appointment by that body of a special committee on the subject.—[ED. REVIEW.]

The *Missouri Democrat* says :

The following is a copy of the interesting communication, on this important subject, from Col. James B. Eads, of St. Louis, to the Commercial Convention held in New Orleans, which we give, as it has not heretofore been published, and there is considerable desire to read it, as a document calculated to excite a new spirit of enterprise in the improvement of the navigation of the great rivers of this country :

St. Louis, May 21, 1869.

General Cyrus Bussey, Chairman Committee of the New Orleans Chamber of Commerce :

"*Dear Sir*—I have the honor to acknowledge receipt of your invitation to attend the Commercial Convention, to meet on the 24th

inst., in New Orleans. Fully sympathizing in the objects and purposes of the proposed Convention, and earnestly impressed with the necessity for concert of action by the people of the Mississippi Valley to advance, protect and assert their common interests, it is a matter of real regret to me that I am prevented by imperative professional engagements from accepting your complimentary invitation.

"I must, however, avail myself of this opportunity to suggest to the Convention the importance of taking such steps as may be necessary to insure the success of the recent laudable movement inaugurated by some of the business men of St. Louis and New Orleans, and aided by those of the chief cities on the river; and with this view, I beg respectfully to call the attention of the Convention to the importance of iron barges and iron steamers on the Mississippi river.

"As these vessels are being used in all parts of the world, except in America, I would suggest that inquiry be set on foot by the Convention to discover why the grain growers and planters of this valley are not enjoying the advantages afforded by the introduction of such boats and barges upon the Mississippi. They are used upon all the chief rivers in Europe and Asia, several streams of which countries are far more rapid and dangerous than the Mississippi. Numbers of them are being constructed in Great Britain for the rivers of India, the Nile, the Danube and, indeed, for streams in almost every quarter of the globe, save America.

These vessels will carry from ten to fifteen per cent. more cargo than wooden hulls of equal size, strength and draft, and never have their carrying capacity lessened by becoming water-soaked. They cannot be destroyed by fire, are made with water-tight compartments, and are almost absolutely proof against sinking. They do not require to be caulked after every trip as wooden ones frequently do, and, being so much more tightly constructed, there is rarely any deduction to be made on their freight ~~was~~ on account of damage to cargo. The plates of which they are made are frequently galvanized with tin, at little expense, before riveting them together, and this preserves them without the cost of painting. They will last four or five times as long as the wooden ones, and when no longer useful for the purposes for which they were made, are still of considerable value for their old material.

"With all these unquestionable advantages in their favor, why are they not used in America?

"In England, barges of this kind are constructed for about two and a half pence per pound, but our tariff on iron makes them so costly to import, or to manufacture at home, that they are a forbidden luxury to the men who are tilling a valley of such marvelous fertility that they can contentedly see one argosy in every twenty destroyed by flames, or sunk by the sawyers of the Mississippi, for the sake of continuing, for the next fifty years or so, that protection and encouragement to our makers of iron that is ultimately destined to enable them to manufacture the material so cheaply that eventually further protection will be unnecessary.

"While our wooden vessels are destroyed by the half-score or half-dozen in a single conflagration, and hundreds of thousands of dollars vanish in the flames in an instant, it is idle to argue that transportation on our rivers is as cheap as it should be. I say nothing of the danger to human life, but view the subject as a money question alone. The destruction of steamers by a couple of fires of recent date—one at our own wharf and one at Cincinnati—would pay for the transportation of ten millions of bushels of wheat from St. Louis to New Orleans. I would ask those who are responsible for this state of things to point to any other country on the globe where such wholesale destruction of property occurs. Yet we claim to be the most enlightened people on the face of the earth.

"If the gentlemen who have inaugurated this most laudable "Grain Movement" think they can make it a perfect success without cheapening the present cost of river transportation, they not only underestimate the cost to the shipper incurred by the present dangerous and expensive use of wooden vessels, but also the energy and ingenuity of their railroad competitors. Nature has given us, beyond all question, the cheapest medium for the transportation of the products of this valley, but we cannot reap the benefit of her lavish generosity so long as we send our cargoes forth in tinder-boxes and antiquated wooden tubs.

"We are suffering under these great disadvantages that the manufacture of iron in this country may be encouraged through an indefinite period, until it can defy foreign competition without protection. Is it really encouraged by the duties now imposed? Is not this interest, after years and years of protection, now asking for higher duties? And has not this protection really operated to retard the development of that manufacture by the fact that the uncertainty of the protection and difficulty of estimating the real amount of advantages given under it, serves to lessen the ability of the capitalist to correctly estimate the actual advantages likely to be gained by an investment in its manufacture when the protection fails?

"This may seem paradoxical, but I think it is not. Suppose, for instance, I require, say one million dollars worth of iron, and purchase it abroad, there will be paid into the treasury of the commonwealth several hundred thousands of dollars in duties, which will benefit every man, woman and child in the country, by enabling the nation to pay its debts, and thus lessen its taxes; whereas, if purchased here, this amount, which represents the home manufacturer's profit, would go into his pocket alone, and its beneficial effects would consequently be very limited in extent. It may be asserted that in the latter case all the money would be kept in the country. It may be said in answer that by the foreign purchase the profit on the work (which is the most important part of it in a country where employment is abundant) would remain here and be equally distributed among the people, and that the entire amount that goes abroad in this way does not probably equal that which goes into foreign hands in the shape of freight money collected from our own

people for carrying their own property in foreign built ships through the effect of this mis-called protective system.

"The enormous tax imposed upon the people of this great basin by the action of the present tariff, through its effect upon transportation alone, is not, I am sure, appreciated by them. On land, as well as on water, the onerous duty on iron impairs the prosperity and retards the progress of the great valley. Every portion of it, not immediately contiguous to one of the great rivers, needs a railway, and this duty taxes the building of a railroad about two thousand dollars per mile. The present tariff is, therefore, synonymous with high freights on land as well as on water. It curtails the extent and increases the cost of railroad facilities, binds us down to a dangerous and antiquated system of freightage on our rivers, and does not lose its blighting influence upon the commerce of the country, even after our wealth has reached the shores of the ocean, for it prevents our countrymen from floating the protecting flag of their own land over their own ships, unless they be built on American soil, and as it costs them so much more to do this at home than it does their French, German, and English competitors to build or buy theirs on the Clyde or Thames, it forces into foreign bottoms the carrying trade of a people claiming to be the most enterprising and progressive of the age, and who certainly should be the most maritime in Christendom.

"I think it is of the first importance that a convention should be called to consider and examine into the effect exerted by the present tariff upon the industrial interests of the Valley of the Mississippi, and especially the influence it has upon our inland and ocean carrying trade. I hope the Convention will, at least, cause a committee of its most intelligent members to be appointed to report upon this subject, if it does not consider it a matter of such importance as to warrant a recommendation in favor of a convention to consider the question. Very respectfully, your obedient servant,

"JAS. B. EADS."

The communication was ordered to be spread at length upon the minutes of the Convention, which, in the same connection, adopted the following resolution:

"*Resolved*, That the building and employing of iron barges and steamboats in transporting produce and freights generally on the Mississippi river and its tributaries is highly recommended as a sure means, if adopted, of lessening the cost of freights and insurance, and increasing the amount of transportation on our rivers; and that the further consideration of this subject be referred to a committee of three, to be appointed by the President of this Convention, which committee will report to the Commercial Convention, to be held in Louisville in October next, to whom also the communication of Col. Eads, of St. Louis, on this subject, be referred, as it contains information of much importance to be considered."

The following are the names of the gentlemen composing the committee: Edwin Harrison, St. Louis, Mo.; Andrew J. Kellar, Memphis, Tenn., and John Robson, Winona, Minn.

We add a letter on the same subject to ourselves :

ST. LOUIS, June 17th, 1869.

Mr. Wm. M. Burwell :

Dear Sir—Your valued favor of the 9th instant came duly to hand. My engagements as Chief Engineer of this company are just now so pressing that I have scarcely time to send you a civil acknowledgement of the receipt of your letter, much less such a response as my respect for you, and my appreciation of the vast importance to the country of the matter of which you speak, would prompt me to write.

I was not, as you suppose, in New Orleans at the Convention. I was honored with a special invitation to attend it, and hastily wrote the inclosed reply to that invitation. I think, with you, that no matter is of such general importance to the people of the Valley of the Mississippi as that which forms the subject of that letter. It is, however, wrongly headed. Instead of "Iron Boats and Barges," it should have been, "*The Tariff—Its Blighting Influence Upon the Inland and Ocean Carrying Trade of America.*"

It seems to me that every effort of the press, and of our public spirited men, should be made to show the whole people, and especially those engaged in agricultural pursuits, how absolutely suicidal to the best interests of the nation is the action of the present tariff, and, indeed, I might add, of any tariff, for I think there are very few articles that can be made subject to duty without inflicting unequal impositions upon some one class of persons or another ; whilst, by direct taxation, the burdens of government can be distributed more equally.

I would particularly call your attention to the importance of proving what is, I think, an undeniable fact, that the duty on iron acts directly to prevent the development of our iron manufactures. It is a good thing for those who are in the business, but it checks those who might otherwise go into it, because of the uncertainty of the duration of the tariff.

The duty fairly represents the whole, or at least a part, of the home manufacturer's profit. It must not be so high as to exclude the foreign goods, or it defeats its ostensible purpose, to-wit : to produce a revenue. When the foreign goods are capable of competing, it is manifestly the duty of every good citizen to buy from the foreign manufacturer, because, by so doing, he secures to his own country all, or nearly all, of the profit that would otherwise inure to the home manufacturer, and as employment is always abundant in this country, the labor of the workmen that would have been employed in making the iron here, would be devoted to producing some other wealth that could not be so cheaply purchased abroad. Thus, by buying abroad, we secure, as a nation, the manufacturer's profit on the goods, and still secure the profit that should flow from the same amount of labor, directed in some other channel. By this arrangement we certainly grow richer as a people by failing to encourage our own manufactures ; and this is the legitimate effect

of the tariff on iron. At all events, we have the broad fact staring us in the face, that after years and years of protection, this interest is asking for increased *protection*, as it is wrongly called.

Very truly, etc.,

JAS. B. EADS.

ART. III.—SOUTHERN HISTORICAL SOCIETY.

No Southern man who reads the very personal and partisan chapters of the "Lost Cause," or the the unjust and unreasonable history of the late war as compiled by Northern writers for the deception of the world and its posterity, can be satisfied with the exposition of the motives, or the recital of the deeds of Southern men fighting for a cause sacred to them.

The Southern people should gather and preserve the archives of their struggle and of their men. In no sense of disaffection to the Constitution which they have now sworn to support, as expounded by the cannon, but to vindicate their motives and their acts. Neither is the present time proper, nor is, perhaps, the man born, who can write an impartial history. Long after the war between England and France in the Peninsula of Spain, Napier wrote its history. So impartial was its style, so authentic was its facts, that it received at once the indorsement of Soult and of Wellington. It has been reserved for an American historian, after long centuries, to describe the war of secession by which Holland separated herself from Spain. But we can now take testimony *de bene esse*, as the lawyers say, to be used when needful. In this connection, we publish the proceedings of the Southern Historical Society, at a meeting recently held in New Orleans. We call the attention of our readers to the notice given by their circular, and urge upon every statesman and every soldier to write down from his memory, or from any documents in his possession, whatever he knows in regard to the facts connected immediately with the declaration and waging of the Confederate war, the causes or consequences which have preceded or followed it. Such documents, verified and preserved, will furnish the material for an impartial history, of which men of every section will be alike proud. When the passions of the past shall have subsided—when the American people shall have harmonized in the great interests of her future—when some man able, universally respected, shall have

been designated by public respect—when the cause of the South shall be heard judicially by an impartial world, then, and not till then, let the “epitaph of the Southern cause be written.”—[Ed. REVIEW.]

[From the New Orleans Picayune.]

There was a regular meeting of this Society, in the office of the Howard Association, which was well attended, and important business transacted. Gen. Braxton Bragg officiated as President, in the absence of Dr. Palmer.

The permanent constitution and by-laws were read, adopted and ordered to be published.

Letters were read from a number of the Vice Presidents elected at a previous meeting.

We append an official list of the officers of the society :

OFFICERS OF PARENT SOCIETY, NEW ORLEANS, LA.

Rev. B. M. Palmer, D. D., President ; Gen. Braxton Bragg, Vice President ; Joseph Jones, M. D., Secretary and Treasurer.

ADVISORY COMMITTEE.

President, Vice President and Secretary ex officio, J. Dickson Bruns, M. D., Hon. Thos. J. Semmes, W. S. Pike, Gen. Harry T. Hays.

VICE PRESIDENTS OF STATES.

Gen. R. E. Lee, Virginia ; Hon. S. Teakle Wallis, Maryland ; Gen. D. H. Hill, North Carolina ; Gen. Wade Hampton, South Carolina ; Hon. Alex. H. Stevens, Georgia ; Admiral R. Semmes, Alabama ; Gov. Isham G. Harris, Tennessee ; Gov. B. G. Humphreys, Mississippi ; Col. Ashbel Smith, Texas ; Gen. J. C. Breckinridge, Kentucky ; Gen. Trusten Polk, Missouri ; Hon. A. H. Garland, Arkansas ; Hon. S. R. Mallory, Florida.

The following able address was read by the Secretary and Treasurer, Dr. Joseph Jones, and unanimously adopted. It very fully explains the objects and scope of the society :

OFFICIAL CIRCULAR.

On the 1st of May, 1869, after several preliminary meetings, a number of gentlemen in the city of New Orleans formed themselves into a permanent association, under the style of the “Southern Historical Society,” with the following general outline :

A parent society, to hold its seat and its archives in the city of New Orleans, with affiliating societies to be organized in all the States favorable to the object proposed ; these in their turn branching into local organizations in the different townships—forming thus a wide fellowship of closely co-ordinated societies, with a common centre in the parent association in this city.

The object proposed to be accomplished is the collection, classification, preservation, and final publication, in some form to be hereafter determined, of all the documents and facts bearing upon the eventful history of the past few years, illustrating the nature of the struggle from which the country has just emerged, defining and vindicating the principles which lay beneath it, and marking the stages through which it was conducted to its issue. It is not understood that this association shall be purely sectional, nor that its labors shall be of a partisan character.

Everything which relates to this critical period of our national history, pending the conflict, antecedent or subsequent to it, from the point of view of either, or of both the contestants ; everything, in short, which shall vindicate the truth of history, is to be industriously collated and filed ; and all parties, in every section of the continent, who shall desire to co-operate in the attainment of these ends, will be welcomed to a share in our councils and our toils.

It is doubtless true, that an accepted history can never be written in the midst of the stormy events of which that history is comprised, nor by the agents through whose efficiency they were wrought. The strong passions which are evoked in every human conflict disturb the vision and warp the judgment, in the scales of whose

criticism the necessary facts are to be weighed; even the relative importance of these facts cannot be measured by those who are in too close proximity. Scope must be afforded for the development of their remote issues before they can be brought under the range of a philosophic apprehension; and the secret thread be discovered, running through all history, upon which its single facts crystalize in the unity of some great providential plan.

The generations of the disinterested must succeed the generations of the prejudiced before history, properly termed such, can be written. This, precisely, is the work we now attempt, to construct the archives in which shall be collected these memoirs to serve for future history.

It is believed that invaluable documents are scattered over the whole land, in loose sheets, perhaps, lying in the portfolios of private gentlemen, and only preserved as souvenirs of their own parts in the historic drama.

Existing in forms so perishable, regarded, it may be, only so much waste paper, by those into whose hands they must fall, no delay should be suffered in their collection and preservation.

There is, doubtless, too much that is yet unwritten floating only in the memories of the living, which if not speedily rescued, will be swallowed in the oblivion of the grave, but which, if reduced to record, and collated, would afford the key to many a cipher, in a little while to become unintelligible for want of interpretation.

All this various material, gathered from every section, will need to be industriously classified and arranged, and finally deposited in the central archives of the society, under the care of appropriate guardians.

To this task of collection, we invite the immediate attention and co-operation of our copatriots throughout the South, to facilitate which, we propose the organization of State and district associations, that our whole people may be brought into harmony of action in this important matter.

The rapid changes through which the institutions of the country are now passing, and the still more stupendous revolutions in the opinions of men reminds us of a great historic cycle, within which a completed past will shortly be enclosed. Another cycle may touch its circumference; but the events it shall embrace will be gathered around another historic centre, and the future historian will pronounce that in stepping from one to the other he has entered upon another and separate volume of the nation's record.

Let us, who are soon to be in that past to which we properly belong, see that there are no gaps in the record.

Thus shall we discharge a duty to the fathers, whose principles we inherit, to the children, who will then know whether to honor or to dishonor the sires that begot them; and above all, to the dead heroes sleeping on the vast battle-planes, from Manassas to Vicksburg, whose epitaph history yet awaits to engrave upon their tombs.

The funds raised by initiation fees, assessments, donations, and lectures, after defraying the current expenses, will be appropriated to the rent or purchase of a suitable fire-proof building for the safe keeping of the archives.

For the accomplishment of these ends contributions are respectfully solicited from all parties interested in the establishment and prosperity of the Southern Historical Society.

Contributions to the archives and library of the society are respectfully and earnestly solicited under the following divisions:

1. The histories and historical collections of the individual States, from the earliest periods to the present time, including travels, journals and maps.

2. Complete files of the newspapers, periodicals literary, scientific and medical journals of the Southern States, from the earliest times to the present day, including, especially, the period of the recent American civil war.

3. Geological, topographical, agricultural, manufacturing and commercial reports, illustrating the statistics, climate, soil, resources, and commerce of the Southern States.

4. Works, speeches, sermons and discourses relating to the recent conflict and political changes, congressional and State reports during the recent war.

5. Official reports and descriptions, by officers, and privates, and newspaper correspondents, and eye-witnesses of campaigns, military, operations, battles and sieges.

6. Reports upon the munitions, arms and equipment, organization, numbers, and losses of the various branches of the Southern armies—infantry, artillery, cavalry, ordnance, and commissary, and quartermaster departments.

7. Military maps.

8. Reports of the Adjutant General of the late C. S. A., and of the Adjutant Generals of the armies, departments, districts and States, showing the available fighting population, the number, organization and losses of forces called into actual service.

9. Naval operations of the Confederate States.

10. Operations of the Nitre and Mining Bureau.

11. Commercial operations.

12. Foreign relations, diplomatic correspondence, etc.

13. Currency.

14. Medical statistics and medical reports.

15. Names of all officers, soldiers and sailors in the military and naval service of the Confederate States who were killed in battle, or died of disease and wounds.

16. Names of all the wounded officers, soldiers and sailors. The nature of the wounds should be attached to each name, and the loss of one or more limbs should be carefully noted.

17. Published reports and manuscripts relating to civil prisoners held during the war.

18. All matters, published or unpublished, relating to the treatment, diseases, mortality, and exchange of prisoners of war.

19. The conduct of the hostile armies in the Southern States. Private and public losses during the war. Treatment of citizens by hostile forces.

20. Number, occupation, condition, and conduct of colored population. Effects of emancipation upon the negro, and upon the material prosperity of the South.

21. Southern poetry, ballads, songs, etc.

All communications, works and reports must be addressed (by mail or express, prepaid,) to Dr. Joseph Jones, Secretary and Treasurer of the Southern Historical Society, New Orleans, La.

After some further business, the meeting adjourned.

ART. IV.—SCIENCE AND THE MECHANIC ARTS AGAINST COOLIES.

BY WILLIAM M. BURWELL.

We have always regarded Aladdin's evocation of 'a power capable of executing any work, by simply rubbing a lamp, as typical of the natural dynamics of which science has given man the control. Aladdin was but a magical and mythical engineer, with his hand on the lever that could stop or start a creative power of the most gigantic character.

Southern society has lost control of a large creative force of disciplined and well directed labor. While that labor still exists, there is no question but that a very large proportion has been diverted, and another proportion has been withdrawn from its former employment. In consequence, the weight of the staples provided by that labor has been reduced nearly one-half. Their increased value has

given to Southern society a larger money return for a less amount of labor, but the fact of a reduced physical ability to produce staple crops in quantity undoubtedly exists. Were there any guarantee that sugar, cotton, and tobacco would always maintain their present prices, the statesman need give himself no anxiety upon this subject. The immense inducement, and capacity for the production of the same staples elsewhere, and the possibility that substitutes for cotton clothing may be discovered, render it necessary that the Southern States should provide some additional means of staple production. This is not merely necessary to increase the growth of these staples, but because every civilized community requires a population adequate to meet all the demands of industry. Population, enterprise, and capital constitute the only basis upon which the interests and influence of a State or section can be ever effectually represented in the Union.

We cannot pass by another consideration of principal importance to the South. The most numerous class of laborers in several Southern States are of a race so different from our own as to prevent any social union with them. It must, then, be always a question which race shall direct the affairs of their common government. There can be no doubt but that this direction should be left to the whites. It must be exercised with wisdom and with justice. The colored race must be so treated as that they can make no just complaint. They must be so treated as that the world shall have no just cause to sympathize with, or to interfere in their behalf. To give to the colored race the control of our government would be ruin to us and to themselves. To expel their laborers, or impair in any other manner their capacity for producing exportable staples would be insanity. We will state the problem for consideration. It is : *To retain in the hands of the whites the control and direction of social and political action, without impairing the content, or the labor capacity of the colored race.*

We assume that the effort to restrain the political influence of the colored race in the South, through the enactment of suffrage restrictions, has failed. Wherever the colored race is in a majority, here they have been assisted with the power of the political majority elsewhere. They are thus practically in control, through themselves or others. The last President fought bravely for his, and

our, construction of the relative rights of the races in the South. Old parties were reorganized for a rehearing of the questions decided by force. Our political subjugation has followed as a corollary to our military subjugation. With the failure of the effort to embody Southern construction in the Executive and representative elections of 1868, arises the necessity of making another effort, but in another line, to effect the same object. Let this effort be made for the restoration of Southern prosperity by the moral and material development of Southern resources. It is plain that with the attraction of more white population, the accumulation of more capital, and the increased variety of industrial agents and employments, must come that control of our own affairs which these attributes always secure to every civilized community.

In considering this question it is a source of great encouragement that there can be no more immigration from the coast of Africa. The barbarism of that people, and the total absence of all industrial knowledge among them, will effectually prevent any civilized people from taking them as apprentices to civilization at anything short of that price which has always been charged—the bondage of themselves and posterity. This is a contract they cannot make, and which none can now enforce. The apprehension of a larger admixture of that race in the affairs of this country may, therefore, be dismissed. As there can be no positive addition to the African population here, it becomes important, both in a social and industrial point of view that the deficiency of dynamic force should be supplied, and the political influence of the African population extinguished. To effect this object two methods combine. We will consider first

WHITE IMMIGRATION.

The capacity of modern improvements to remove from one country, and distribute through another, a large aggregation of people, constitutes one of the most remarkable attributes of the steam era. There is every probability that Europe will decant itself into America until it shall have established something like a populous equilibrium. The Southern States have not heretofore offered the same facilities for the importation of white numbers that have been given by other States. Indeed, the high price of lands, the uncertainties of private land titles, and the prejudice against living and

laboring with negroes, have given a decided impulse to immigration towards the Northwestern States. To counteract this attraction it is necessary to organize a system of invitation to immigrants. This, we are gratified to say, is being very effectually done. The Southern States are appropriating money, and the Southern people are advertising in every possible manner the extraordinary attractions of our country and its products. Let it not be forgotten that the profits in labor, as applied to cotton and sugar, are among the chief advantages which the South has to offer in competition with the inducements of the Northwest. We are the unqualified advocates of white immigration, and of white immigration alone. Our ancestors were white Europeans, and although a recent Southern writer has asserted that the effect of our climate upon European immigrants now will be to paralyze their energies, the white men who made the crops and fought the wars of the South refute the idea. The descendants of white immigrants will be just like ourselves. They will be the brothers, the husbands, the comrades of our descendants and theirs. They will amalgamate with us in sentiment, in interest, in destiny. This can be said of no other race to be imported among us.

We have discarded the African immigration as an impossible social element. Let us consider the Asiatic. The Chinaman and the East Indian stand next to the African in American estimation. In many respects he is far below the African. The African is at least utterly ignorant. He is docile to be taught our own impressions. He now believes in the Christian system of salvation, and copies the ideas and customs we have taught him. The Asiatic has a superstition which he will die rather than surrender. He believes in nihilism, or in inhabiting some animal after death. He is utterly faithless to any standard of Divine or human obligation which we can set up for him. Physically he is unequal to the African in his ability to labor, while he is equally repugnant to all our ideas of a common race. In the hour of danger he would be neutral, or treacherous. The object, then, of the South being to strengthen itself by such an union and aggregation of other populations as will make it strong and prosperous, we say, without the fear of contradiction, that no one can wish to import either Africans or Asiatics for social reasons. The single inducement then remains that the

South needs additional labor. The object of every community is to so utilize its resources as to receive sufficient annual revenue to subsist its whole population, afford a fair return to enterprise, and accumulate a capital adequate to the general prosperity in peace, and the common defence in war. Whether this be done by employing alone the labor of able-bodied men in a single staple, or whether by such a division of labor as will enable other than able-bodied men to maintain themselves by employments adapted to their skill or strength—whether society subsist itself and accumulate a surplus by ships and spindles, or by the plow and spade, or by a due mixture of these industries, is a matter of no consequence to the statesman who only sees the common happiness and common strength as the object of every industrial system.

If, therefore, the Southern people are to-day making nearly double as much money as formerly by the culture of staples, with half the laborers formerly employed—if the Southern people—and we do not limit the South to the delta of the Mississippi, but extend it to the falls of the Kanawha and the Cumberland coal mines of Maryland—if the Southern people have all the elements for manufacture in their midst, all the facilities of commerce in their ports, we cannot exactly see why they should be restricted to cultivate cotton and sugar for the rest of the world, or why the rest of the world should secure cheap cotton and sugar by making the South the Botany Bay of Africa and Asia.

Suppose, then, that the present value of cotton and sugar is two hundred and fifty millions of specie; suppose that by converting cotton into cloths and refining our sugar these values can be doubled; suppose that by the introduction of immigrant mechanics the South can manufacture, and thus keep at home, any part of the value of the imported commodities consumed by its people. Will not this system be easier, and better, and more profitable, and stronger than that which relies upon added agricultural labor alone to increase and keep up our exported values and of our domestic prosperity?

COOLIE LABOR.

We look with much dread upon the importation of incongruous races. The future prosperity and freedom of the South consists in eliminating from its institutions anything which shall distinguish it

from other sections. To add to the negroes Asiatics and Chinese, will perpetuate a sectionalism which must be always fatal to our hopes of political justice and equality. To keep in our midst a population whose votes or muskets may be turned against us by outside influence, will be to sign an indenture of eternal degradation.

We warn those who cling to the old idea of uncompensated labor that it is no longer a thing of the South. Those political philanthropists who wrote, and, indeed, fought, in the closet, should come forth among the people and see the world as it is. They will see that there is to be no more of either the labor or the system of the past. We have too much at stake to debate the application of past theories to the present. We have had to battle with the same school that now advocates the introduction of coolies, when it attempted to reopen the slave trade. The same practical arguments that defeated the one attempt will defeat the other.

We have shown the social and political reasons why the introduction of Asiatic labor would be unwise, we will now argue that while the social evils to result from this importation are inevitable, the economical industrial expectations of those who advocate it will be disappointed.

The whole cotton crop of 1868 will be 3,000,000 bales. Of this cotton the Southern States produce about three-eighths. Other countries duce about five-eighths. Within ten years past this proportion has been exactly reversed. Now this last result has been chiefly produced by the introduction of railroads in the British East Indies. This system has constructed five thousand miles of railroad; it has introduced the culture of cotton and rice into the Asiatic provinces. There gift lands are to be had for clearing and irrigation. There is two hundred millions of people. It is with this reservoir of coolie labor, rice fed and climate clad, that it is proposed we shall compete by the importation of a part of this coolie labor. We apprehend that this labor can work cheaper in its own country than in ours. It is obvious that England can produce cotton with coolie labor cheaper than we can. If this be our only chance to compete with the East Indies, then the small number of coolies we can bring over in ships can do nothing in competition with the large number that will remain in India. To ask England for laborers to impair her own production is like buying guns from the people we are fighting with. It is

very obvious that when we thus acknowledge our dependence upon a British source of labor supply that the British Government could, by simply forbidding the emigration of coolies, put a stop to that project of labor supply. Is it wise to rely upon a source so wholly under the control of others?

It is very plain that the present price of cotton results from the inadequate supply. Why should the Southern States seek to reduce the price by increasing the production? We do not doubt that many a planter who looks only at his own estate, with the diminished force and surface under culture, sighs for more and cheaper labor, but if he reflects that he receives more money for one hundred bales of cotton now than for two hundred formerly, why should he seek to cultivate two acres now where he did one formerly? If his acres lie idle, is it not because the world has chosen to pay dead rent on them? If a few planters could confine the importation of coolies to themselves it would be more profitable, but this could not be done. Any other planter, any successful freedman, could import coolies with the same facility, and the aggregate immigration would restore the cultivation to the same extent, and reduce the price of cotton to the same rates, as formerly. But the excess of land over labor gives the planter the advantage of cheap land, and of a reserve of land to be used in an indefinite future. It is not generally taken into the estimate of our crop production that no land has been cleared in the South for nearly ten years. Much of that under cultivation is annually declining in its productive capacity, but by seeking the best land, and by fertilizing small surfaces, the product is kept up. Were there a material addition to our present labor, there must be a more rapid destruction of all the arable land, and we must incur the expense of opening new lands. If the South has no other element of competitive production, she has a large capital of cheap, open land. Let her not consume it with more rapidity than is absolutely necessary. The present low rate of our arable land is the chief offset of our planters against the comparatively high rate of labor. With the importation of a large proportion of coolies must come an increase in the value of land, and an enhanced disadvantage in the competition with the coolies at home. Many planters regret that their lands will not command their former prices. Yet these lands are a part of the capital input for the production of cotton.

If land was laid in at former prices, and labor at present prices, the planter would find his profits materially diminished. Let us be content, then, with cheap lands, for by cheapening labor we consume more land, and so enhance its cost. We do not carry out the calculation in detail to show that if cotton decline in price we should have to employ and feed three laborers, and cultivate ten acres, where we now employ and feed one laborer. These are plainly incidental to entering the arena to cultivate cotton in America with East India labor in competition with England, who cultivates East India lands with East Indian labor. The contest, until the war, was between African labor, disciplined and directed by American energy, and Asiatic labor, listless, apathetic, and effeminate. We have lost our vantage ground, shall we deliver the battle on the ground to which we have been driven by the strategy of the enemy? If England succeeds in her avowed and undoubted purpose, the production of cheap cotton, then will the Southern States be left at the close of the contest with worn out lands, an impoverished people, and with the curse of an unmixed and unmixable population, which bears a dangerous proportion to the whites. We had better profit by past lessons, and abandon all intention to reopen the slave trade in cheap Asiatics. We may remark here, that many persons with whom we have conversed are of the impression that the coolie will always labor at the same rate at which he is imported. Why the coolie should labor alongside of the negro, at less wages than the negro receives for doing the same amount of work, we cannot understand. It would be still more incomprehensible that no planter would bid more for the coolie than the low rate at which the importer held him. Have we peonage here? Can a man hold a laborer against his will? If he break his indentures and go away, can the employer follow him with a fugitive slave law? It is rather our impression that if planters, cultivating the earth, should hear that there was half price labor on the plantation of anybody else that they would explain to those laborers their rights, and inveigle them to leave their half price situation. There would be Joss houses and an opium stupefactory, and birds' nests would be sold in the shops. Every inducement would be offered, and it is not reasonable to suppose that a faithless heathen, who quits his own country to make money, would resist the temptation to double his wages. We do not say that a

day's work of a coolie would be equal in value or in price to a day's work by a white man or an African, but that the coolie would receive, before he had made the second crop, as much for planting, plowing, and picking an acre as any one else would.

The interest of the Southern planter is different from that of the European consumer. The latter is desirous to increase the quantity of cotton grown and to reduce the price paid for it. We held a conversation some weeks since with Mr. Everett, an English philanthropist, who has interested himself very much in Southern immigration. He was accompanied with a bishop of the Greek, or Armenian Church, and the purport of the conversation was upon the policy of importing coolie labor into the South. We could not forbear remarking on the different stand-point of the consumer and producer of Southern staples. The British Government, to reduce the cost of tobacco, and facilitate the labor of its American colonists, had sent over ship loads of African slaves. In process of time this element and institution became a source of controversy, and ultimately involved the loss of our liberty, with the investments of a century and a half. The ruin of the South was occasioned by the adoption and possession of the element of labor thus introduced among us. When the same interest comes again to persuade us to import other incongruous races, it is certainly proper to consider our own interests as well as those of our advisers. There is no reason, then, why the Southern States should encumber themselves with incongruous immigration, since the same mode of increasing labor applicable to cotton is now being pursued by a nation with far greater capital, with indefinite coolies, and with a totally different motive from ourselves. England quarantines her coolies twelve thousand miles from her limits. When, therefore, England shall have built ten thousand miles of railroad, and employed a million more of coolies, cotton may decline in price, so that our increased number of laborers will produce no more values than our present limited number of laborers, but the curse of imported paganism and treachery will remain. Our enemy may in the future, as in the past, employ these incongruous races to overthrow our liberties and perpetuate our subjugation. The very investments resulting from imported coolie labor may be confiscated or destroyed by an anomalous population. Let us, therefore, build this time more care-

fully and upon a different basis from the past. Let us be satisfied with cotton at twenty-eight cents and sugar at fifteen cents per pound. Do not let us labor to reduce these rates.

We are aware that an article in a periodical can neither prevent the people of the South or North from doing what they design, but we deem it a duty as a representative of the material interests of the South to remind them that this question of importing Asiatics deserves serious inquiry.

There are many other advocates of Asiatic immigration into America besides the British. All consumers of cotton are the advocates of more labor in the South. The New York *Tribune* favors it, and thereby combines the economy of cotton consumption with the continued political control of the South. There are other Northern papers which are actuated by one or both of these motives, but we regret to see some of our own journals caught with the specious idea. The Convention at Memphis invites "the industrious and well disposed of every land and country, and especially of our own race, to cast in their lot with us." The New York *Journal of Commerce* says :

The labor of the South, so far as we can see, must be sought in Asia. For the wheat and corn lands of the West, the Germans ; for the railroads, canals and public works, the Irish ; and for the cotton and cane bottoms of the South, the Chinese. The last importation is the most urgent of all ; for the negro race, under the fostering of those who most profess to be its friends, is dying out. The Chinese would more than make good the void caused by the extinction of the Southern negroes. When it comes to voting, nobody should be nice in these days, but the Chinese cannot vote until they become naturalized or reach the second generation of adults, so that a discussion of that contingency is unnecessary here. If it is objected that they are idolators, then the reply is ready that by bringing them over we put them within reach of the Home Missionary Society. Regarded from every stand-point, but especially from that of business interests, the importation of Chinese to the abandoned and weed-grown plantations of the South is much to be desired.

This is a very cool condemnation of the South to the Chinese. It proposes to give to the South the cheerful duty of unteaching the Chinaman his ideas of theology and indoctrinating him with the orthodox ideas of Christianity. Considering that from the days of the Jesuit missionaries to the present, the Chino-Christians are so few as to be objects of cabinet curiosity, we have little hope in that

direction. If it is to be accomplished through the agency of the colporteur of the Home Missionary Society, sent out from New England, it does not tend to commend it to our favor. The *Journal of Commerce* says, regarding it from the stand-point "of business interests, the importation of Chinese to the abandoned and weed-grown plantations of the South is much to be desired." Certainly it is desirable to the consumer of cotton, but we prefer that these fields should be grown in weeds, because they will be rested and ready for cultivation when the rest of our lands are worn out. We are greatly concerned when we find Southern papers fall into this trap of the cotton consumers, and innocently assent to this scheme for the depreciation of their staples and ultimate degradation of their people. In the last number of the *Southern Farmer* we have a paper in favor of importing Chinese. It is by Mr. George W. Gift. We do not know whether he writes from a planting or consuming stand-point. He says:

We want *people*; and the question to be solved is, where are the people to come from? Can you get them from Europe? We say no. You have well-drilled, influential and shrewd agents to contend with all over Europe, who have not and will not be slow to represent the advantages to accrue to settlers in the Northwestern States, and the disadvantages of our country, especially the cotton region. All the horrors of malarious diseases are dilated on, troubles with the negroes, the unsettled state of society, insecurity of life and property, hostility of the Southerners toward foreigners; all this, and more, too. At all events, foreigners from Europe do not come here, and they do go elsewhere. Another and grave objection to Europeans, as field laborers, is their liability to succumb to the diseases of our trying climate. This is an objection to which no candid or intelligent man should shut his eyes. In the matter of procuring labor, several considerations must be kept in view. Our efforts should be directed in an available direction; the laborers must possess industry and willingness to work; they must be willing to work for moderate wages; they must be able to work in our cotton, rice, sugar, and tobacco fields. Will the Irish, Scotch, Swiss or Germans fill the bill? Decide for yourself. We think not. Will the Chinese? Yes. In the article, copied from the *Overland Monthly*, it was shown that this people are ambitious for employment, seek it out, and faithfully perform their contracts; and it is proven by the animosity of the white laboring classes on the Pacific coast that they work for low wages; and judging from the numerous avocations they follow in California, they may readily be taught to do any and everything we may require of them, and being an intelligent race, it is likely that they will adapt themselves to our tools and modes of farming as soon as

would Europeans. They are the best operatives in woolen factories ; why would they not soon be excellent hoe hands or plowmen ?

The last point for consideration is, whether he is equal to the task of laboring during August and September in the sun. We must reason from analogy. The southern part of China extends *within the tropics*. Rice is produced in vast quantities, sufficient to feed the population of the great empire, and to export many cargoes annually. Sugar is also a staple production, the greater portion consumed in the Pacific States coming from that country. Now we know that in order to produce rice we must have heat, low, moist land, and frequent irrigation, or rather overflowing. This is also the very climate and conditions necessary for the production of malaria ; in fact, we know that the medical statistics of the Navy Department will show that seamen suffer more from malarious diseases about Canton than at any other place in the world. This is beyond controversy. Hence we say that the race which cultivates sugar and rice in China may do the same in Carolina, or Louisiana, or cultivate cotton in any of the Southern States, and be comparatively exempt from sickness. This point satisfactorily settled, and we have in the Chinaman the very person we are in search of.

We regret very much to see men writing in the Southern interest yield the health of our climate, the troubled state of society, insecurity to life and property, hostility to foreigners, as prejudices which cannot be counteracted by proper effort and representation on our side. We are not prepared to admit that Europeans, as field laborers, are liable to succumb to "the diseases of our trying climate." Especially do we contest the impartiality of this concession on our behalf when the writer asks every man who is willing to advance the cause of Chinese labor "to send us his name" "and fifty dollars for each hand" he desires to import. We do not suppose that this is the Mr. Gift who gave name to the celebrated "gift enterprise," but we regard this proposal as fraught with great danger.

The New Orleans *Commercial Bulletin* adopts the views of the *Journal of Commerce*, and says of other journals :

They also agree with this paper in concluding that, for the present, the South must look to the immense beehive of Asia for the working muscle needed to sustain and develop its agriculture. We attach less importance than they do, however, to the industrial deterioration of the Southern negroes under the special political influences which have been at work upon them since their emancipation. These influences, unquestionably, have been greatly and variously pernicious, but it is to be doubted whether they have done more with respect to the quality and quantity of negro labor than to accelerate in some degree a declination that was bound, sooner or later, to ensue.

We regret to see any part of the Southern press admit our dependence on Asia for working muscle. The deterioration of the Southern negroes cannot be arrested nor controlled by the importation of coolies. It would be sheer madness, in a social and political point of view, to add the Asiatic to the African element, both of which must come under "the special political influences" which have disfranchised the white people of the South and given control of its affairs and its legislation to the white adventurer and the negro.

The Baltimore *Statesman* treats the social and political difficulties in a more grave and serious manner. Speaking of an article in a late number of the *Galaxy*, headed "Our Impending Chinese Problem," it says :

This is a subject well worthy of the gravest consideration. The rapid influx of the Chinese, notwithstanding the great discouragements to their immigration into the Pacific States, their power of living and multiplying under circumstances that would insure the extinction of Caucasians, the certainty that the disabilities under which they now suffer will be removed so soon as it becomes worth the while of political parties to bid for their vote, which will insure the arrival of ever new multitudes from the teeming soil of China—all these facts point to a time, and that not far-distant, when not merely the balance, but the preponderance of power in these States will be held by the Chinese, and when all this sections of the continent—itsself an empire—will be Mongolised.

There are two sides to this very grave question. In the first place, it cannot be denied that *as immigrants merely*, there are none better than the Chinese. They are peaceful, law-abiding, sober, and thrifty. As laborers, though physically weak, for the most part, they are industrious, intelligent, docile, contented with moderate wages, and able to subsist in good health on a minimum of food, and that of a cheap kind. Chinese labor has rendered enterprises possible that were impossible without it, and made undertakings profitable that before were helplessly bankrupt. There is no doubt that a large Chinese population will add incalculably to the wealth of the Pacific slope.

But there is another and a higher view than the pecuniary one. A large Chinese population will of necessity be admitted to political equality, which will bring social equality in its train. The mixing of the races cannot be avoided, nor its consequence, a hybrid population. As this writer puts it ; "the teeming population of our hemisphere two or three centuries hence may have more Chings and Changs in their genealogical trees, than Smiths and Browns ; for, other things being equal, the predominant blood will be that of the race best able to maintain an undiminished rate of increase." This he calls a process of Americanising the Chinese ; we call it Mongolising the Americans.

When we consider of how transcendent importance is this question of race, how far, not merely our own prosperity, freedom and progress, but those of the whole world, depend upon the brain and nervous system of the conquering and enlightening race, and that hybridity of this kind, once introduced, can never again be eliminated—it is well worthy consideration if it is not too heavy a price to pay, even for billions of bushels of wheat and casks of wine—yes, for the weight of the whole Sierra Nevada in solid gold.

The New Orleans *Picayune* has some flippant paragraphs upon the same subject, in which it treats the utter incompatibility of paganism with the moral and theological doctrines of the South as of little consequence. It apprehends that there are people among our Christian population as corrupt and carnal as any Hindoo can be. We admit the truth of the assertion, and deem it injurious to the interests of the South that we should import any more of a stock of which we have too much at present. For after all, the great end for which the South fought was not for cheap cotton. It was for her own social system and the right to direct it. That object is still dear to the hearts of all who *fought* for it, though it be naturally an object of indifference and ridicule to those who did not.

We have had, recently, a specimen of the controversy which is to arise on this subject between the Southern advocates and opponents of coolie immigration. In the resolutions on immigration introduced into the recent Convention in New Orleans by the Commissioner of Immigration for the State of Louisiana, there was an alternative proposition that, in the event European immigration should fail, it would be judicious on the part of the South to import coolies and Chinese. A member from Tennessee moved to strike out the proposition, and supported his motion by an excellent argument, the purport of which was that we should not favor the introduction of pagan and otherwise incongruous races. This view was sustained with great moral force by Dr. C. K. Marshall, of Mississippi, and was stricken out with much unanimity. The Commissioner of Immigration was a comparative stranger to the social condition of our country before the war. He looked alone at the labor question, and took, as we think, a mistaken view of that question.

We do not think that Europeans and coolies can be well imported into the same communities. For when the vicious and dangerous character imputed to the African in the South is an objection made to immigration of European whites, it must certainly strengthen

that objection to add to them the pagans and prostitutes of China and Hindostan.

The South is now to take a new latitude and departure. The theory of owning the laborer is destroyed. The world prefers that its staple of clothing shall be cultivated by hired labor. We charge the world, therefore, the cost of labor laid in by retail instead of at wholesale. Let us realize that it is more profitable to produce a small quantity at a high price than a larger quantity at a reduced price. If this involve a subdivision of lands we must accept the condition, since the consumer prefers to have it so. Our pages are open to the discussion of this grave question, for while our opinions as a patriot and a planter are made up, others have an equal right to discuss views opposite to our own.

ART. V.—THROUGH FREIGHTS AND CLOSE CONNECTIONS.

There has been, perhaps, no error of Southern policy more injurious or more difficult to correct than that commerce demands for its support a high rate of transit charges. The strongest illustration of this error consists in the fact that the natural and artificial charges of transshipment at New Orleans tend to neutralize the economy of water carriage, and has, together with longer transit time between production and consumption by that route, contributed last year to turn more than 6,000,000 tons by the railroads and canals which connect the interior West with the Atlantic coast. These transit charges are: 1. Natural, as the pilotage and towage of vessels. The necessity for some transfer is common to New Orleans with all deep water ports. 2. Artificial, as wharfage, factorage, storage, drayage, and river insurance. Very recently the merchants and Council of New Orleans have become convinced, by the diversion of trade, that concessions must be made to the policy so successfully adopted by rival cities. The passage of the Pontchartrain Railroad to a wharf depot on the river, the grant of way to the Jackson Railroad to the wharf, the projected establishment of a depot for the Opelousas Railroad on the New Orleans side of the river, show that all the railroads leading into New Orleans will connect with the shipping and with each other. Other reductions and reforms,

such as sheltered wharves, rolling freight elevators, and close connection on through bills between the river and ocean shipping, will promote the commerce of New Orleans immensely.* These facilities will, with proper commercial treaties, bring the tropical products through New Orleans and the other Gulf ports of Mobile, Pensacola, and Galveston, and so constitute for the interior Western markets a line of transportation inboard, by rail and river, far cheaper and more rapid as to tropical trade than the coast route by which the same commerce is now conducted. In the meantime, this internal trade by rail is assuming the most encouraging proportions. The organization of the fast through freight lines by the railroad companies will furnish the cheapest and most responsible agency for express goods.

We trust that at last the Southern railroad companies will see that to build, maintain, and run a road, to have officers, employees, and stock without full employment, and then to let these fast freights out to an outside express, without other capital than a few iron safes, revolvers, and horse wagons, is as unwise as it is unjust to the people who have built these roads. We trust to see every Southern railroad do its own package express business, and an association of roads carry the whole through trade at rates sufficient to pay for fast service, but far below the exorbitant rates charged by the outside express for the same services.

We feel some pride in calling the attention of our merchants and citizens generally to the fact that the following letter vindicates the theory laid down in our May number that the contra-costa, or inboard line of transportation by rail and river, will ultimately beat the coastwise route. It will conduct most of the imported commodities consumed in the West, and will conduce to the improvement of Southern commerce. It is by no means to be forgotten that the river and coastwise rates of insurance in New Orleans promote this object greatly. A case of measurement goods weighing an hundred and fifty pounds, worth six hundred dollars, would pay at least six dollars coastwise insurance. The freight by the express association,

*When we hear some politicians advocating the importation of more pagans to control the labor of the African, and all admitting the scarcity of agricultural labor, we must remind them that to substitute mechanical for manual and animal means of transferring interior and foreign commerce in the Southern cities, would send at least ten thousand able-bodied laborers to the cotton and sugar fields, and three times that number of women and children, who now encumber our cities with so many paupers and non-producers.

even at two cents a pound, would be but three dollars. Our insurance companies are of opinion that these rates are as low as possible. Perhaps so. They will at least help our Southern railroads greatly by maintaining, or even by raising, these rates.

We are gratified to know from a communication addressed to us, and added to this notice, that the association of Southern railroads from Louisville to New Orleans have organized such a line, and are prepared to anticipate the most favorable results from its operations.—[ED. REVIEW.]

OFFICE NEW ORLEANS EXPRESS FREIGHT LINE, }
New Orleans, May 3d, 1869. }

WM. M. Burwell, Esq. :

Dear Sir—In response to your present inquiries, and your ever encouraging words from the inauguration of the through freight system, with its low tariffs, we are enabled to record our expectations on the road to be realized by an extending, far-stretching, and increasing business of incoming and outgoing freights.

And this, instead of working an injustice to the local patrons, will enable the various roads to reduce their local rates in the same ratio that their through freight increases. The cost is so little more to run trains to the full capacity of the locomotives than it is to half the capacity, that through freights can be transported at low rates and still a saving be made to reduce local charges. True, in running a road through an undeveloped country, the property along its bed and contiguous thereto is enhanced in value from one to a thousand per cent., and in most instances this enhancement, with the facilities it furnishes, is sufficient to pay the entire cost of the road, the rolling stock, and its outfit, but how seldom, if ever, is this appreciated. Is it not, then, reasonable, is it not just, that the local business should pay the interest, at least, on this investment, and all executive, operating, terminal, and local expenses. But it is proposed to aid the payment of these expenses by through freights at low tariffs, the importance of which is so clearly set forth in your pertinent article in a former number of *DeBow's Review*, an extract of which appears in President Beauregard's able report of 1868.

The policy adopted to further the income of the roads and aid the commerce of New Orleans is, when we reach the outskirts of the cotton growing region, and wherever there is danger of cotton seeking another market, to make special rates in successful competition with the eastern shore route rates, even at the railroad minimum transportation cost of running a train to its full capacity, instead of sending it through at half capacity, at nearly the same cost. This enables the fast freight line to load back its cars at very low rates, in preference to sending them back empty, loaded not only with our local productions of sugar, molasses, rice, turpentine, rosin, moss, etc., for all parts up to the Ohio river, and many points beyond, but also with importations of coffee, fruit, wines, liquors, spices, Cuba sugars, etc. This same policy obtains in bringing

Western produce from Louisville, Cincinnati, and tobacco from Kentucky and Tennessee, and loading the return cars for Clarksville, Nashville, and Tennessee and Kentucky generally, and for the aforesaid cities and prominent points above the Ohio river. The same policy prevails in bringing manufactured tobacco from Virginia and loading back with Louisiana products, and with importations at least as far east as Knoxville. The same policy in bringing rice from the Carolinas, cow peas from the Carolinas and Georgia, and return Louisiana productions to all these shipping points, and importations as far as Atlanta. In a few short months, when the railroad bridge shall span the Ohio at Louisville, and the direct rail connection shall be completed to Cincinnati, then the fast freight line will be able to enter into successful competition, so far as low freights are concerned, with the great railway lines leading and branching out westward from the great importing cities of the Atlantic slope. Then it will remain for New Orleans merchants to say if they will supply the north as well as south of the Ohio river with importations. But to do this they must be alive to the occasion, reducing all charges of commissions, profits, etc., to their lowest possible living margin, for in the great increase of business will lie their commercial prosperity. A successful effort must be made to reduce to the lowest possible point all import and warehousing expenses, and last, but not least, it is most important to secure for this and (other Southern cities,) with its own large interest appealing, the right of way to the river for the New Orleans, Jackson and Great Northern Railroad, and other railroads, so that the enormous drayage charges will not strangle these distant shipments in their infancy. These charges, for example, cost more for transit from the Mississippi river to the railroad depot than for a hundred miles by the fast through freight lines.

What a future for New Orleans if her business men be but equal to the occasion, and rest assured that the New Orleans Freight Express, of which C. S. Sawyer, Esq., of Louisville, is the able and efficient manager, will aid to the fullest extent of its strong ability to return to New Orleans its former commercial superiority.

I am, sir, respectfully yours,
J. B. MOREY,
Agent New Orleans Express Freight Line.

ART. VI.—THE MORALITY OF AGRICULTURE AND MECHANICS COMPARED.

We know nothing which has more discouraged the introduction of mixed industry at the South than the libel upon the morality of mechanics. It was a weapon used against a protective tariff—it was an unlawful mode of defeating an unlawful policy. We have seen the vice and ignorance of the manufacturing towns of Europe

whose miseries were established centuries before manufacturing machinery was ever employed, charged as the consequence of mechanical industry. Two men in America controverted this injustice: Matthew Carey and Hezekiah Niles affirmed that to carry wages and employment among a poor and ignorant people improved them in virtue and intelligence. To this has been added the testimony of such Southern men as Gov. Morehead, and Holt, of North Carolina; Gregg, of South Carolina; Pratt, of Alabama; Anderson, of Virginia, and others, all of whom testify to the reformatory tendency of wages and employment.

On the other hand, that mere manual labor in the field does not necessarily purify and educate the laborer, is shown by the condition of our negroes, and by the testimony of writers and Parliamentary committees in England and Wales.*

Deeming the adoption of mixed industry in the South of the highest social and political importance, it is natural we should relieve the mechanic arts of imputations as unfortunate as they are unjust, for this purpose we publish an authentic report, copied from the London *Saturday Review*, of the state of agricultural morality in England.—[ED. REVIEW.]

AGRICULTURAL POOR OF ENGLAND—WOMEN AND CHILDREN IN THE FIELDS.

DOES FARMERS' WORK CORRUPT THEIR MORALS?

One of the most important in the last series of Parliamentary blue books is the report of the Commissioners who were sent to inquire into the condition of women, young persons, and children employed in agriculture. Ostensibly limited to the labor of females and children in the fields, the inquiry has diverged into the general condition of the agricultural poor of England. And this the report makes out to be far from satisfactory. It appears that children are sent into the fields at the age of eight. They are too young for really hard work, but there is a good deal of necessary labor which they perform. They "tent" in the fields—that is, they watch them, and frighten away the birds. They naturally take part in the work that requires stooping, such as dibbling in peas, pulling up turnips, and weeding. For such work they may earn a shilling or two a week.

But, it is said, this life is brutalizing and demoralizing. The boys grow up stupid, heavy, animal, not only without the power of

*We may add that we have never held the pastoral virtues in much respect, notwithstanding the poetry of Virgil, and Allan Ramsay, from the fancy shepherdesses of the classics, who contended for wooden bowls, *alternis versis*, to the Boulotte of Offenbach, who gains, by lot, the prize as *rosiere*, or the best and most virtuous girl in the village—we have never considered sheep keeping in the open fields conducive to either intelligence or good character.

reading and writing, but without the power of observing and reflecting ; while the girls in the field-work lose all respect, not only for chastity, but for the semblance of decorum ; and, if not ruined in their morals, become utterly unfitted for the duties of wives. We fear that there is too much truth in this. At the same time, the description of one class of people by an entirely different class is liable to exaggeration. With regard to the condition of women and children in certain districts, it is simply abominable. But this is confined to certain districts, and is owing to causes which we shall notice later. What we wish now to remark is, that inspectors and clergymen are generally prone to exaggerate the evils which they witness. They forget that at the best, the whole web of agricultural life is almost necessarily coarse ; and that it is unreasonable to expect from men who have toiled all their days on a farm the same decorous speech as their hear from snug tradesmen in a country town. There always will be a plainer and a homelier phraseology among country laborers than among city artisans or domestic servants. But there need not be that shameless immodesty and disregard for chastity which seems to characterize some of the female gangs. At the same time, some of the Assistant Commissioners might have asked themselves the question whether, bating the obscenity of the language, there was so very great a difference in the actual morality of the laboring class and that of a class very much above them. It is true that the young women are often unchaste, but the general testimony of the Northumberland witnesses shows that the same girls who are unchaste before marriage are often eminently chaste after marriage. There is no greater mistake than to suppose that grossness of language necessarily indicates immorality of conduct. The young ladies of the Tudor period indulged in much coarser phraseology than the young ladies of our period ; but it would be a very incorrect inference that they were less virtuous than the young ladies of our period. The daughters of respectable farmers, sixty or seventy years ago, spoke much more broadly and plainly than the daughters of farmers of our day ; yet we have no reason of thinking that they were a jot less virtuous. Mere working in the fields does not necessarily corrupt the morals of women. It hardens and roughens rather than depraves their characters. It gives a masculine tone to them, and impairs what is left of feminine softness. And if it were possible to have gangs of girls working only with the women, coarseness of language would be the result rather than immorality of conduct. Women work in the fields of agricultural France and Germany. Their work is heavier than that of men ; their food and language quite as coarse as those of men.

But bating a kind of rough and indecorous phraseology—there is not so much systematic proficacy in the villages as in the cities of France and Germany. And there is with them, as with us, the virtue of undeniably hard and healthy work. It is not the solitary fact of the adult female labor, or of juvenile female gangs, which causes female immorality. It is the concurrence of this with home

training which precedes and accompanies the field-work, which, while it confirms the coarseness, saps the morality. It is the herding together of girls and boys, young men and young women, in the one room of the insufficient and crowded cottage. It is enforced and unnatural suppression of the native instinct of modesty in the miserable hovels which the unwise and unholy parsimony of the landlord or the speculator has stinted in quantity and quality. It is the foul and incestuous life in the cottage which generates the open and flagrant immorality in the fields. In the part of Northumberland where wages are good, and cottages well-built and roomy, the conduct of the peasant women is substantially virtuous and correct. It may not satisfy the requirements of clerical inspectors or fastidious censors, but it will satisfy the expectations of most reasonable men. The women talk the language of their caste, which is not that of drawing-rooms. They expiate their precocious slips from virtue by irreproachable fidelity as wives and mothers. It is in the eastern counties, where there are "close" parishes, and where the house accommodation is poor and barbarous, that the women and girls act and speak like the harlot caste of a savage race. The education that is required, we thus see, is the education of circumstances rather than of books; of good homes rather than of schools; unless indeed some means could be invented to dispense altogether with children's labor. It is the same home life which both hardens and deprives the men, not the occasional feasts and their rollicking incidents. Although the songs and "chaff" at the harvest feasts are singularly gross and revolting to refined tastes, some of the Commissioners and Assistant Commissioners may have heard something not extremely dissimilar at a Cambridge supper party, or even in the days of Temple pupilhood.

Let us not be supposed to say that this condition of things is one that does not call loudly for improvement. We only say that the grandly serious treatment of agricultural folly and love-making, if extended to other circles, might give the world a picture of English society which we should not like to dwell upon. Although the Stephen and Daphne of the English counties make love rather openly and grossly, there is at the bottom not much more immorality in their intercourse than in that of young De Boots and his Traviata. Of course there is a difference between the undisguised openness of the one and the conventional concealment of the other pair. But, if education is to improve morality, it must be extended above the denizens of the eastern counties peasants. And this is what the peasants themselves feel. The dullest and stupidest of them hates to be preached at. And we are not sure that he is wrong. It must be very aggravating to a poor man who has been toiling from 7 A. M. to 6 P. M. on a cold, wet March day, and who comes home thrice soaked through to a not very strengthening supper, to be catechised by a well-fed and well dressed gentleman respecting his earnings, his wife's earnings and the duty of sending his boys and girls to school. If he could only find words to vent his indignation, he might ask his critic whether a man who was laboring hard the

greater part of the year from morning to night for his family was not to be excused some breaches of manners and some outbreaks of gaiety. And, if he did send his children to work instead of school, was it not the normal discomfort in which he habitually lived that made every additional six-pence which they might earn a matter of importance to him and them? Aye, too, were he taunted with temptations and corruption to which his daughters were exposed by field labor, might he not retort that the work of moral corruption had been begun by the insufficient and ill-constructed houses in which he and they were compelled to live? If he had a better house and better wages, he need not deprive his children of a good education or subject them to a normal taint. But is it possible to get these higher wages and better homes out of the existing fund of agricultural profits? Who will build cottages without regard to interest, or pay wages without reference to profits? On this point we must hereafter recur to the report of the Commissioners. That the evils which they point out are grave nobody will gainsay. But no one can fail to see that they are evils which it is hopeless to correct by sudden and wholesale legislation; that their mitigation depends on changes affecting the whole agricultural class, and that their extirpation will only be effected when machinery does the work, not only of women and children, but also of men. That day will perhaps come, sooner or later, but it is far more likely to come later than sooner. It came early in America, because, in America, the supply of land was unlimited, while that of men was stinted. And it will not be till the agricultural population of England has been diminished, by some cause or other, that women and children in the rural districts will be regulated to the duties of home and the labor of school.

We add to this an extract from a recent letter addressed to and published by Rev. Henry M. Smith, D. D., editor of the *Southwestern Presbyterian*. It will be found a strong vindication of the policy of mixed industry and village building. These are measures of the utmost importance in the South. They attract population and accumulate wealth more rapidly than any others can:

On Friday afternoon my niece, Mrs. L. Kattby, and myself, took a drive to East Hampton, to examine the extraordinary button manufactory of Mr. Williston, and associates. I have not much to say about the factories, because I am not *au fait* as to machinery. But the efforts of this factory, and its associate factory for suspenders, in creating, within a few years of operations, a most extensive flourishing, and beautiful town, are truly astonishing. As Mr. Williston and his associates are millionaires on the results of their button enterprise; and, also, men of much intelligence and large liberality in the use of their ample means; they will have no objection to see in print, even the puny beginnings of the enterprise which has resulted so splendidly. As I had it:

Years ago, Mr. W. was poor, but ingenious as well as industrious.

His wife was of similar material, and withal economical. To help her husband on in the world she devoted her attention to tasteful needlework, as the noble women of ancient days were accustomed to do. Among the objects of her industry was that of making, with her hands, beautiful silk buttons for sale. The demands for her exquisite handicraft were greatly beyond her power to supply. Then came in the genius of her husband, and he applied machinery to aid her to enlarge her button trade; and the *finale* of the matter, after twenty years experimenting, improving and extending the business of button making, Mr. Williston is a millionaire and a magnificent benefactor. He has expended millions in utilizing a little river, and erecting very large and extensive factories, and multiplying machinery. He has initiated a large manufacturing town, and contributed generously to schools and churches; besides, he and his partners have constructed fine, yea, elegant residences, and many of the employees have done the same for themselves, while all who are engaged in the business live in remarkably neat and comfortable homes, and are rapidly rising in wealth.

The button factory employs over one hundred females, and, perhaps, forty or fifty males, besides clerks, agents, etc. They manufacture buttons of all descriptions, from the coarsest or largest size for coats and overcoats, to the finest sizes in cambric, silk and linen, needed for useful or ornamental purposes.

It would be too tedious for this letter to explain the progress of a button from the first to the last blow. As a general illustration I will say that each little linen or silk button requires, say fifty touches or blows, and no operative gives it more than one touch. Every thing is moved by ingenious machinery, impelled by water power.

It is fascinating to observe the work in all its variety, and quite astonishing to witness the results of these manufactories in building up a large and flourishing inland town, in a lovely valley of the Connecticut river. The support, comfort and wealth of the whole population of East Hampton, five or six thousand at least, spring from the button factories of Williston & Co. The thrift of the whole community is palpable to the most careless observer. Operatives, and all those engaged in mechanic arts, are busily engaged from sunrise to sunset.

Merchants and traders, usually found in towns, seem to have constant employment; and such as have already accumulated wealth, seem busy in its display by the construction of public schools, town halls, churches and private residences, which, in elegance and taste, are worthy of the highest admiration.

I have made this letter so long that I cannot tax you *now* with what I have to say about other drives around North Hampton, especially my drive up to the top of Mount Holyoke. Those hereafter.

This business of village building will bring the Middle and Southern States population and wealth sooner than any other process that can be resorted to, and should be at once taken up and patronized by every Southern Legislature.

ART. VII.—URIEL ACOSTA—A TRAGEDY.

BY KARL GUTZKOW.

TRANSLATED FOR DE BOW'S REVIEW BY MRS. SARAH A. DORSEY.

(Continued from May number)

Act II.—Manasseh's Garden at his Villa. In the background is an estrade covered with carpet ; it has several seats raised upon it, and steps lead up to it. Scene I.—Manasseh, with a slip of paper in his hand, reads. Simon.

Man. This can't be, it is impossible that
He would dare to come ! Silva, Ben Jochai,
Ban de Embden, De Castro, all very
Well ; but this name—

Simon. Did your daughter add, sir,
With her own hand ?

Man. Inconceivable ! Is
She ignorant, what hangs threatening above his head ?
Simon. She comes herself, now, this let her
Explain to you. I have but to obey. [*Goes out.*]

Scene II.—Judith, Manasseh.

Judith. Welcome, father, you have left us here a
Long time alone, since you shook off the gold
Dust of Amsterdam from your clothes in this,
Your fair garden. You seem troubled, father ?

Man. Care has greeted me even here, Judith.

Judith. Have I not ordered all right splendidly,
As you like to have it at the end of
Your week's hard labor in the hot city ?
Are not the guests you are accustomed
To receive invited to your table ?

Man. How could you ask Acosta here to-day ?

Judith. He has not been here for seven whole days.

Man. Did I not write you he was threatened with the ban ?

Judith. And therefore I invited him to come to us.

Man. The man whom all avoid ?

Judith. Therefore I would seek him.

Man. He will not come,

I think, because he will feel that our kind
Invitation shows good taste, and that it

Will be still finer in him to refuse
It—I think so.

Judith. Since when has Wanderstraten
Grown so prudent? The friend of Van Dyk, of
Rubens, so credulous? [*Pointing to the statues.*]

Elias and
The prophets, all would crush into fragments
These images of demigods, that are
Forbidden by the commandments. I do
Not believe that you have not the courage
To cherish men more than you do these dead images.

Man. I am very well known for
A man of freedom of thought, and I am
Proud that Manasseh Wanderstraten does
Not find himself in a penitential
Shirt on the day of atonement. I won't
Be a hypocrite. Everybody knows
I belong to free souls of all religions
That includes Moses, Christ, Socrates—I
Seek the good out of all. But it is a
A very different thing when a man fights
And struggles, only digging up mud out
Of old prejudices, that the masses
Will cling obstinately to; that's folly.
Then, of course, I take sides with believers,
As is becoming, and I can't separate
Myself from all external duties. No—

Judith. The artist is cherished, and the thinker
Is cast out with weak cowardice.

Man. Judith,
I have also heard that men suspect you,
Are the cause of the regard Acosta
Shows to us. There are but two principles
Dear to my soul: one is—you may smile—my
Peace and wealth here, in my own possessions,
The still calm of its ordering, and its,
Tranquil comfort; the other is the voice
Of rumor, that is called all powerful,
The dictum of the congregation. I
Do not prove its *worth*—it is, and so I obey it.

Judith. So walk taste and truth then not together.

Man. The claims of life and custom
Are strong, and very unwillingly I
Allow myself to be instructed in
Them, as DeSilva taught me yesterday.
Jochai is your betrothed according to
The customs of our people; so it is
Proper that to-day, in the circle of
Your kindred, every eye should see him at
Your side. You will prepare for this, Judith.

Judith. And this histrionic exhibition?

Man. Must take place to-day.

Judith. How, father, to-day?

Man. Well, that Jochai does not appear to you
Like the bridegrooms in your heroic lays
I know; still—now comes my sure rule of life—
If two betrothed appear like a loving
Pair, so that the world is satisfied, let
Them settle all the rest with their own hearts.

Judith. And this settlement is so easily
Made—you think, as easily as when you
Prove your secret ledger?

Man. Enough! You'll keep
Acosta away from the table—that
Is my stern command to you. Save me from
Trouble! You know I do not see earnest
Affairs too willingly in my pathway.

[*He mounts the estrade.*]

Scene III.—Judith (Alone.)

Oh! world-wise soul! Am I not so fettered
That my full, laboring breast dares not e'en
Pulsate freely? How shall I teach my true
Countenance to lie—to smile with love, where
I now do hate; and hate must I pretend
Where I do love so ardently? Some one
Comes! It is he—he opens the gate—I
See him at the end of the long avenue
Of trained yew trees. The very flowers
Seem glad to welcome him! Am I as cold
Now as should be my father's daughter? Ah!
What is it hinders me, that I should not run
Now joyfully to greet him—that I should
Not clasp him to my throbbing heart and let
Him feel its quick pulsations? Do I not
Love him? My coward heart is frighten'd at
Itself. To unriddle this contradiction
In myself, the holy rights of mutual
Love must come; his mouth must speak, and eye to
Eye, and heart to heart, it must be conquered
Without its own volition—be surprised
E're it betray itself; still, I have done
Nothing yet, and yet my eyes fall to the
Earth, in conscious fear of love's betrayal.

Scene IV.—Uriel, Judith.

Uriel. I come, dear friend, because you wished it;
I hope I shall meet no strangers to-day.

Judith. Because I, only, wished it, have you come?
Where have you been so long? Why do you fly?

Almighty God, in all this troubled time,
In all your heavy trials, why should I
Not have known of your cruel sufferings?

Uriel. What, about my strife with the synagogue?

Judith. What do I trouble myself with about
The synagogue? Do I care for that? No,
Uriel, you were going to fly hence.

Is it true, then, that you have been here so
Carelessly greeted that you would have so
Readily departed, this very day,

Uriel. Without one word for me--me, Acosta?
Be cold, I entreat you; speak not so soft
To me now. Be, what you must be, the wife
Of Jochai! It has been often, so often, discussed, and
So oft wept over, already by us,
Why should we open again the old wound?

Judith. You shall not speak so of resignation.

Uriel. Judith!

Judith. I shall hate you if you speak so
Despairingly, of abandonment! Why?

Uriel. You know the family rule among
Our people--the father wills, the child must
Obey; and bonds, at first of steel, soon change
To rosy garlands. I know this life is
But a forcing house.

Judith. Say that to yourself,
Acosta, when you go away alone,
With your cold, sceptic thoughts; say it not here;
Not here, among these statues, where you have
Awakened me with warmest life!

Do you no longer recognize this green,
Quiet bower, where you did not speak of
Peace, Acosta, but your mouth told me tales
Of battle, of storms in the world's history!

Oh! Uriel, this is the flowery
Garden, where I so oft have wander'd
Leaning on your arm; there, in that very
Spot, you pointed out a rare weed to me;
You saw it, you told me its name,
You plowed

Fire out of this fallow ground. Wonderful
Magician! You taught me how all Nature
Yields to the secret spirit--how in cold
Metals, in very pebbles, in all plants,
There still slumbers a hidden strength; how, then,
In ourselves, only, was soul all dead? Was
There nothing could spring out of our ashes?
No spark from steel, no balm from poison?
No, Uriel, you have built before my
Eyes a Jacob's ladder, on which I've climbed

To Heaven, and now, when I float there in
 The ether, in the kingdom of clearest,
 Free thought, are you going to strike away
 My staircase from beneath my feet? How, then!
 I never can go back Uriel, and
 Fetter myself again with the thoughts of
 The congregation!

Uriel.

That we are so bound,
 Is written, Judith, in tears on every
 Green grass spear-point here, that it should not be
 Thus! That it ought not so to be, I know,
 But savage outcry and yearnings do not
 Become us, Judith! Let us be calm now.
 Possibly, if we had not turned away
 From our books—if we had never spoken
 Of stars and metals, but only gossiped
 Of our neighbors, this wild impatience of
 An unnumber'd mob would not rage and shriek
 Around us and against us, my Judith.
 But may Heaven strike me with its lightning,
 If I would not have endur'd this woful
 Sorrow patiently, for I was flying
 Far away, Judith, my feet were on the
 Path of separation when they dragg'd me
 Back so cruelly. Love, you cannot choose
 Here; you must submit. Do you know what now
 Threatens me? The ban hangs o'er my head, and
 Disinheritance from Judah! A curse
 That must drive me far from your dwelling. Who
 Would dare to love one so accursed? Yes,
 I hold this curse to be, to me, honor,
 Yet can I share its pain with none beside.

Judith.

Acosta, can a people thus cast forth
 The best, the noblest man among their race?

Uriel.

It will be done. Therefore, for the last time, my
 Judith! (*he seizes her hand*) Judith!
 Farewell! (*He sees Jochai enter.*)

Ha! Ben Jochai

Here! And guests surround him! Are we, then, not
 Alone? What are you doing, maiden? Do
 You wish to show me, woman? This foolish,
 Variegated crowd only humbles me.

*Scene V.—Ben Jochai walks forward upon the terrace surrounded
 by guests, all magnificently habited. The above, other guests ar-
 rive later, lastly Manasseh and DeSilva.*

Jochai.

(*Aside.*) Is this a parting now forever, they seem to be
 Taking? (*Aloud.*) I present my good compliments
 To you, Acosta, since I meet you here;
 I believed you to be, long ere this, in

- Heidelberg, where you said you would go
Teach the wood-birds how to think and argue.
- Judith.* There is no need to be in haste about that,
Since here, in Amsterdam, you see,
We have (*pointing to a feather in Jochai's hat*)
Also urgent need of instruction in
Wisdom for many gay, idle peacocks !
[*She takes Uriel's arm and leads him slowly behind the scenes.*
Music begins to play in the distance.
- Jochai.* For the last time you speak thus saucy girl !
How sweet is vengeance that fate casts in our
Hands, and that a man is not forced to rake
Up for himself ! She leads him, unabash'd
Into the hall.
(*Silva and Manasseh upon the terrace.*)
- Man.* (*Angrily.*) No, it shall not be so !
- Silva.* Patience ! patience !
- Man.* Inconceivable ! What
I had so strongly forbidden.
- Silva.* Now calm
Yourself ! You appear necessarily
Uncourteous to your guests, brother-in-law ;
The Sanhedrim has not yet condemned him.
- Man.* Custom, however, he shall know, does not
Follow condemnation, but precedes it.
[*He goes in. Silva ascends the steps.*
- Jochai.* I am astonished, Silva ! Have you changed your opinion ?
- Silva.* Have we, then, the right to
Forestal the sentence of the judges ?
- Jochai.* How,
Does Silva speak thus, who condemned his book ?
- Silva.* Condemned ! Have I trumpeted that forth now
Upon any market place ?
- Jochai.* How,
DeSilva, everybody knows that the
Council has received your answer, and
Your answer was this line : "*He is no Jew.*"
- Silva.* So you talk ; you do not understand me ;
- Jochai.* That you love him, I very
Well understand.
- Silva.* Eh !
What ? I love him not ; and still, yes—truly
It may appear that I have wavered—
Our heart is very like to a strange
Instrument, filled with sleeping harmony,
Fashioned so, that it responds right readily
To touch of man ; one believes too oft the
Master has drawn forth its last rich, sweetest
Treasures of sound, its fullest chords of true
Melody—that it can yield no more, when

Lo, onward, yet onward, glides the skilful
 Finger, and unexpected beauties, new
 Figures, catch up the dying tones out of the
 Inexhaustible fount of pure music.
 Learn how it went with me in the proving
 Of that same book.

Jochai.

What am I to hear now ?

Silva.

Yes, Ben Jochai, when I shut myself up
 With the work, in the calm quiet of my
 Lonely chamber, I read its pages one
 By one. I know not how, but there came to
 Me suddenly most wonderful light, and
 Full comprehension out of it ; Jochai,
 This thinker made so many things so clear
 In me, with an all powerful magic,
 And I murmured in my soul, impossible,
 I cannot deliver him, even
 Erring, to the priests, lest I betray a
 Worthy pupil of great Plato's. Willing,
 I essay'd to cast in much from the
 Thora and our Talmud, that I have deem'd
 Grown from falsities and ignorancies,
 But here, I read deep thought therein ; and still
 It ought not to be thus. So I commend
 Him to be judged by the Talmud and the
 Thora ; I wrote merely one line at the
 End of the whole book, it was : " This is no Jew."

Jochai.

What, was it ambiguous ?

Silva.

Still not so !

I wrote what would condemn him as a Jew ;
 But is he a Jew ? Is it needful to
 Pour on him the sorrow of the ban ? To
 Bow his head under this shameful sentence
 Of persecution ? No ! Acosta has
 The right, whenever he chooses, to call
 Himself a Christian.

Jochai.

Silva !

Silva.

Then Judith

Is abandoned to you.

Jochai.

What do you say ?

Uriel a Christian !

Silva.

His father, in

Portugal, foreswore his faith, became a
 Christian, and brought up his children in the
 Jesuit college of Cuenca. As they
 Fled hither from the Tajos, they returned
 To Judaism, also Uriel ;
 It is in his power, if he chooses,
 To call himself, still, Christian.

Jochai.

A Christian ! Ha !

Silva. That would separate him forever from Judith.
 So it is, and now to your work
 Of salvation ! You out of hate—I do
 Not judge you—and I—well, no matter what.
 Enough ! some one enters the avenue ;
 I heard that the Sanhedrim had learned
 Acosta was here with the Wanderstraten ;
 Santos comes to bring the curse of the Church.
 When he comes, the messenger of fate, then
 Step you forth—I must keep back—and you say,
 Acosta, you are a Christian ! You well
 Understand—because Judith will never
 Dare to become a Christian—you remove
 All nourishment for suspicion in your
 Love, and I, who do not believe all that
 Acosta persuades himself to receive,
 (Tho' I feel respect for the thinker,) you
 Will spare me this much : the grief of blushing
 Before Plato, and all philosophers.
[He goes. Jochai follows in joyful expectation.]

*Scene VI.—Manasseh and other guests, gentlemen and ladies, ascend
 the steps of the estrade.*

Man. What sayest thou, Simon ? Priests at our gate ?
 Rabbi Santos ! an unusual honor !
[Uriel and Judith follow him.]

Uriel. They come.

Judith. What is the matter with you ? Look
 Boldly and openly ! Where is Silva ! *[The music sounds.]*
 Ah ! the musicians ! They are coming near.
(To Uriel.) What do you hear, cold, prudent, mistrusting
 Soul ? Does the mind break thus the measure in
 The sounds of the notes ? What troubles you so ?
Uriel. Look without, Judith, the priests are there with
 The ram's horns ; they come hither for me !
 See !

[All gaze with pale, frightened faces from the estrade at the procession.]

ART. VIII.—SOUTHERN LABOR.

BY A. P. MERRILL, ESQ.,

For securing prosperity to the Southern States the question of labor is paramount. A broad extent of fertile soil, capable of supplying the world with the agricultural products most in demand, is without the means of successful cultivation, and manufacturing languishes for want of skilled operatives. Besides the vast extent of wild lands unoccupied, large and productive plantations are

lying idle, where the plow and the hoe are among the things of the past. The fervid rays of the summer sun paralyzes the energies of the European laborer, and, by an unwonted convulsion in the social organism, the negro has been arrested in his labors, and doomed to extermination. One-fourth are supposed already to have disappeared, and the products of Southern soil and manufactures are scarcely one-fourth what they would have been had no disturbance taken place.

What, then, is to be done? Are the Southern people to stand sullenly idle, and permit the weeds, and the grass, the willows and the cotton woods to usurp the places of the cotton and the sugar cane? Are they to confine their energies to the discussion of abstractions, or to search for the resources indicated by Providence and apply them? We may be sure that God did not create this vast extent of fertile soil for a waste. Nor did he bring upon it the highest order of manhood to ignore its value and neglect its cultivation. He has not placed this great people upon the borders of the earth, and arrested the progress of empire eastward, only because there is no longer any west, without important designs. Like many other providential designs, they may seem obscure, but they are not hidden from human view. We have only to turn our eyes toward the setting sun, to see what has been provided.

The steam engine, like the old war horse whose neck was clothed with thunder, after cavorting for a while about our great cities, has turned its course westward across the broad continent, plunging into the Pacific Ocean with its shrill whistle and surging paddle, while it has aroused from the slumbers of centuries the natives of the east. That great hive of humanity, China, whose four hundred millions of people occupy the proper space for only one-half the number, has been invaded with peaceful but resistless power. These men languish for want of employment and food; but they are ingenious, enduring, tractable, and lovers of gain. Without the versatility of the Caucasian, each Chinaman learns one thing well, and is content to practice it while he can live by it.

For many ages it has been a puzzle to determine the designs of Providence in regard to these numberless people, whose capabilities are so great, and whose usefulness is so restricted. It has been left to us, in this favored region, to unravel the great mystery, and to

discover the wonderful adaptation of means to ends—here is the soil, there are the laborers—and the power of steam has brought them together. The railway just completed, the last blow upon which reverberated round the globe, overcomes every obstacle to free intercourse, and opens the way for a vast tide of immigration from the west eastward, the first since the creation of man. This will be followed by the speedy construction of another road, offering facilities of immigration and trade at all seasons, and at a more moderate cost.

In the selection of laborers for the South an important consideration is adaptability to climate. In regard to this our forefathers made a great physiologic mistake. In their ambition for speedy gain, they rushed into the torrid regions of Africa, making violent seizures of a portion of the feeblest of the human race, whose physiologic requirements are a vertical sun and vegetable food. It was at that time the hive of humanity most easily invaded, affording them inexhaustible supplies of material. The planters of the South received into their cabins a race of men presenting, from their constitutions and habits of life, only a small amount of muscular power. To make their labor profitable, they were compelled to consider their physiologic necessities. These were much the same as our own would be were we transferred to the climate of the Esquimaux: blubber and furs. The negro, constituted for, and reared under, a tropical sun, subsisting on roots and fruits, languished and died in a colder climate, unless sustained by fats and protected by clothing. The results are to be seen in the "American citizen of African descent," seated among the rulers of our country.

With the Chinese hive of humanity the case is very different. Here we have not drones, but workers. Their climate being much the same as our own, no great change is required to be made in the habits of the immigrant. Instead of coming to us in a state of mental depression from cruel treatment, the Chinaman comes buoyant with hope and zeal. His object is money. Although his capabilities may be enhanced by a more liberal diet, he requires less care to protect him from suffering than even the European immigrant. He is less liable to malarial mischief than the negro, and bears the heat of a Southern sun nearly as well. With more vigor than the newly imported African, it remains to be seen whether he may not be

qualified for more effective labor. Having no attachments for other countries than his own, he is not likely to covet ownership of the soil, and being content with any government which protects him in the fruits of his labor, he is not likely to become a politician.

We must look, also, for important results from European immigration, but these will be too tardy for meeting the wants of the South, and the demands of the nation and the work. It can never be relied on to supply the gang labor required for the cultivation of large estates. It has always been observed that the strong tendency of Europeans and all Northern immigration is westward, and if the course is to be deflected from this direction, it is more readily turned northward than southward. The objection made to the South that fever is more common and fatal to immigrants than in the newly settled countries of more northern latitudes, is true only in regard to certain districts. In many parts of the South the reverse of this is true. A belt of country embracing the northern portions of Alabama and Mississippi, and extending westward through Arkansas and Texas, has been populated, and some portions rapidly, by immigrants from the east moving westward, who have suffered much less from the fevers afflicting new settlements than the emigrants from New England and from Europe moving into Ohio, Indiana, and Illinois, including also Michigan and the other Northwestern States. Even the prairie and riparian districts of Louisiana have proved less dangerous to new settlers, and in no other portion of our whole country do we find a larger proportion of longevity than among the immigrants into that country from British America. Northern emigrants so pertinaciously moving westward need to be enlightened on this subject by the observations of medical men. Like many other people, these immigrants have a morbid fear of the effects of water upon the human system, and they habitually avoid every appearance of moisture. But if we examine the matter, we shall discover that a very small proportion of human suffering and mortality is due to such influences. Fever prevails most in seasons and localities of extreme dryness, and nothing in history is more true than men do not die of water, but for the want of it.

Many European and Northern people have moved into the Southern States since the war, but very few have turned their attention to

the cultivation of the soil with their own hands. We find these immigrants engaged in almost every employment, and most of them are strong advocates for Southern improvement, but in the season of planting we do not discover them at the plow handle. This is the class of immigrants the South is most in need of, but for years to come there will be difficulty in turning them southward, and this difficulty will be increased by the greater antagonism of races resulting from ill-judged efforts to establish equality. The Southern plow will not be held by Northern hands while the present policy of the Government continues, nor until the colored element is reduced to small proportions. But there will be no trouble about Chinese equality and brotherhood. The Celestials ask no sympathy from "barbarous Christians," and heartily despise all obtrusive benevolence. All they require is pay for their work, according to contract, and they are content with moderate compensation. They will perform with equal contentment gang labor on large plantations and labor in detail upon smaller farms, placing it in the power of every land owner to become a planter.

Let us recur for a moment to some of the differences between the African and Chinese races. The former was brought to this country in nakedness, a feeble, docile, and submissive slave, without self-reliance, and incapable of self-support. In the Northern States he was rejected as an unprofitable laborer and sent South. Here, even in the State of Louisiana, he could only be made valuable by the use of fat meat and corn bread as food, and by liberal supplies of clothing. Without these his animal heat was deficient, and his early death inevitable. Mentally, he was a child, and required that a superior race should do his thinking for him. He was liable to despondency and death from the influence of his native superstition—without ingenuity and forecast, and even the facility of imitation. Easily persuaded by religious teaching, (which he received in the Sunday schools of Virginia and other Southern States more than a century earlier than that institution was inaugurated in the Church of England,) he was readily Christianized, but this has never been done to the extent of displacing his native delusions. Earnest and enthusiastic in his devotional exercises, the paramount idea of the negro is to propitiate evil rather than to invoke benevolence, and to this day the leading African churches in New York

city, in the midst of the highest Christian examples and charities the world affords, practice muscular exertion and bodily contortion to the extent of complete exhaustion.

Now, the character and constitution of the Chinaman are in many respects the reverse of all this. He does not acknowledge the necessity of leading strings, but prides himself upon his self-reliance and ability for self-support. He is clothed, educated, and in his right mind. Ingenious, industrious, enduring, and economical, he boasts of his high capacity in every branch of labor. He does his own thinking, and is apt to learn. His habitual forecast induces him to provide for the future in life and in death, in soul, body, and bones. He is moderate in his diet, clothing, and desires, firm in his religious belief, subject to few diseases, and long lived. Exacting as to his rights, he is faithful in the performance of his contracts, and by nature, necessity, and habits a laborer—a patient, willing, ingenious, and untiring laborer.

No doubt the proposed system of labor will afford many examples of "man's inhumanity to man," but not more than other systems elsewhere. The manual labor of the world, with few exceptions, is and ever has been, performed by slaves; not necessarily by slaves bought with money, and owned as "chattels," but none the less slaves on that account. The laborers of all countries are slaves to those who enjoy the fruits of labor, and the penalties of disobedience are severe everywhere. Humanity, civilization, and religion penetrate with about equal difficulty the mines and workshops of England, the steppes of Russia, and the plains of India, and the punishments inflicted are about equally severe in all, whether in the form of English want and starvation, Russian stripes, or India loss of caste, and none are more cruel than the thumb-tie and sweat-box of America.

It must not be expected that China labor among us will be exempt from evils of this kind, for the poor negro, cursed of God and man, is now more sorely punished in freedom than in slavery; but the introduction of the Chinese may lead, in God's own time, to the extension of Christianity. Their attachment to their native soil may enable the immigrants to reflect back the lessons to be taught them in America; but we must not be too sanguine, or expect too much in this matter. The negro experiment has disappointed us.

We fondly hoped it might have led to the regeneration of Africa, but it is now only too evident that degradation is perpetuated. The condition and character of whole races of men are not easily changed. While no means are discovered by which the skin of the Ethiopian can be changed, it must not be supposed that a negro can be readily converted from his native faith and idiosyncrasies, or a Chinaman from his long established idolatries. But these are not good reasons for ignoring the present indications of Providence, and especially when we are convinced that the condition of the Chinaman will be improved in America scarcely less than was that of the imported African.

The great West may boast itself the granary of the world, but the South will ever be the principal source of national wealth. The former may feed and clothe untold millions confining their wants to home productions, but the products of the latter must pay for importations from foreign countries. Even now, while the South lies like a disabled and bleeding giant, preyed upon by vampires, it is by the feeble efforts of her paralyzed arm alone that the nation is saved from the evils of bankruptcy and the disgrace of repudiation. At the very time when the breadstuffs of the West could only be exported at a loss of money, the products of the South were yielding a golden income from abroad, counted by hundreds of millions. Now, to the cotton, sugar, rice, and tobacco of the South, add the tea, wine, opium, and ramie which her soil will produce under Asiatic culture, and the South becomes pre-eminent in agriculture. Open communication with the Pacific coast by her own air-line railroad, stretching from ocean to ocean, with a saving of hundreds of miles in distance, with little impediment from mountain ranges, and none whatever from snow and ice, and the South becomes the entrepot of eastern commerce for the world—the one condition of wealth in all past ages. Nineveh, Babylon, Rome, and Britain, with all their boasted wealth and dominion, sink into insignificance compared with a nation enjoying such advantages.

ART. IX.—THE EDUCATED ENTERPRISE OF THE SOUTH.

Speaking of the completion of the Central Railroad to the Virginia White Sulphur Springs, the Richmond *Whig* quotes from the *Greenbrier Independent* :

In another paragraph, the *Independent* says: "If every man had not done his whole duty, the cars would not now come within in our county; but the palm must be awarded to the engineer in charge, Col. A. L. Rives—a gentleman who has been found equal to any position, civil or military, in which he has ever been placed, and whose thoroughly scientific education, practical experience, natural energy and ability, entitle him to the highest rank in his profession."

Col. Rives is well known to us as a young man whose father, Hon. W. C. Rives, had the good sense to give him a practical and scientific education. He graduated at the Polytechnic School of Paris, and is now competent to project anything that can be executed by scientific and mechanical skill. During the war he rendered admirable service from his knowledge of railroad and bridge structure, and, we think, reported a plan for a strategic railroad system in the South. We need thousands of such young men in the South, and hope soon to have the institutions at which to educate them. This is indispensable to the material development of the South.

ART X.—THE IMMORTALITY OF OPPRESSION.

Tyranny and rapacity are always as ignorant of, as they are indifferent to, the history of their past iniquities. We copy from "Lossing's Field Book of the American Revolution" the dialogue between Lords Mansfield and Dunmore, on the supposed conquest of Virginia by the British army. It is written by Frenau, a zealous American Republican. It would require no alteration to have made it a fit conference between Lords Seward and Butler.—[ED. REVIEW.

DIALOGUE BETWEEN LORDS MANSFIELD AND DUNMORE.

BY PHILIP FRENAU.

Lord Mansfield.

Would you worry the man who has found you in stores?
Come, courage my Lord, I can tell you good news!
Virginia is conquered! The rebels are banged,
You are now to go over to see them all hanged.
I hope that it is not to your nature abhorrent,
To sign for these wretches a legal death warrant;
Were I but in your place, I am sure it would suit
To sign their death warrant and hang them to boot.

Lord Dunmore.

My Lord! I'm amazed! Have we routed the foe?
I shall govern again, then, if matters be so;
And as to the hanging, in short, to be plain,
I will hang them so well they'll n'er want it again.
With regard to those wretches who thump at my gates,
I'll discharge all their dues with the rebels' estates.
In less than three months I shall send a polacca
As deep as she'll sail, sir, with corn and tobacco.

ART. XI.—LIBRARY OF JOHN C. CALHOUN.

J. B. Noble, Esq., of Galveston, Texas, writes in relation to the sale of the J. C. Calhoun library: "My information is derived from my brother, Edward Noble, of Abbeville, S. C., who was present at the sale and purchased for Mrs. Clemson, (daughter of Mr. Calhoun,) a few of the most valuable works. The library was sold as a part of the estate of Mr. Andrew Calhoun, who died intestate, and the amount realized from the sale was between three and four hundred dollars. The bulk of the contents consisted of congressional documents, of no particular use to most persons. Besides these, the standard works were small in number."

This limited collection of works may be accounted for by the fact that Mr. Calhoun had always the best public libraries at his service, but more especially, we think, that he was a great original thinker. Deducing his demonstrations from sound principles, by an unerring logic, he had little need of the argument or illustrations of others. This has been the case with all great philosophers and founders. They have announced a doctrine and expounded it from the light of their own internal conviction. It is surprising to see such minds as those of Patrick Henry and Franklin arriving at the same results with the statesmen and sages who had preceded them, without any reference to their exposition or to their example. Mr. Calhoun was as little indebted to the authority of others as any man who ever lived, and we do not remember ever to have seen a quotation used by him.--[ED. REVIEW.

ART. XII.—PROPHYLAXIS, OR PREVENTION TO DENTAL DECAY.

BY A. F. McLAIN, D. D. S., M. D.

PUBLISHED BY AUTHORITY OF THE NEW ORLEANS ACADEMY OF SCIENCES.

Mr. President and Fellow Academicians :

From the great amount of energy, zeal, and intelligence which has been, and is still being directed, through journalistic and other sources, by gentlemen of attainment and skill in the various branches of the "healing art," to the treatment and cure of diseases pertaining to their respective specialties, it appears somewhat singular that with the varying—nay, sometimes doubtful success, which attends, and has always attended, such efforts, and from the prevalence and constant recurrence of those diseases, so little attention has been paid to *Prophylaxis*, or what is more familiarly known as prevention.

If this observation is true of the medical art proper, how much more applicable is it to dental surgery than to any other of the allied branches of medicine, inasmuch as the causes of dental decay being rather of a physico-vital character, they are better understood, and are, therefore, more easily guarded against.

As prolific as dental literature has become, and numerous and able, taken as a class, as are the practioners of this beneficent art, very few among them, indeed, have thought of applying that homely old adage, that "an ounce of prevention is worth a pound of cure," but it would seem that the *sine qua non* of their aim and ambition consisted in combating diseases already established, instead of warding them off.

Admitting that dentists, as well as physicians, are not usually consulted until the patient has become ill, or is seriously threatened with illness, or the ravages of caries have already begun in the

dental organs, still much good might be done, in default of that elementary knowledge which should be possessed, at least, by all heads of families, if not generally, how to preserve the teeth from those disorders to which they are more commonly subject, by dental practitioners adopting the plan of imparting to their patients, during their professional intercourse with them, or to the parents or guardians when these are too immature in age to profit by any instructions, some practical information concerning the nature and chemical composition of the teeth, the general causes of their decay, how they may be acted upon by certain agents taken in the mouth as food or drink, the necessity of certain kinds of food being used, in order that the integrity of their organic structure may be maintained, by explaining to them the relations which the teeth bear to other organs, and how, by reactions from other organs, (the stomach, for instance,) the teeth may become affected, by giving them an idea of the office of the teeth, and at the same time setting forth how much the quality of the blood, and, consequently, the proper nutrition of these organs, depends upon the perfect mastication of the food, and, above all, they should be fully impressed with the necessity of absolute cleanliness of the teeth, together with the observance of such other hygienic and preventive measures as may be deemed appropriate to the case.

The French, as a general thing, are much better versed in those rules having reference to diet and ordinary hygiene, than the American people, for children are taught at an early age to exercise some discrimination in the choice of food, by selecting such articles as are healthful and nutritious, and to eschew those that are naturally indigestible, whose qualities are impaired, or whose effects are otherwise pernicious. And what is of great moment, too, they are made to observe some regularity in the periods for taking their food, besides restricting the quantity thus taken within the proper bounds, at the same time avoiding it at improper hours. They are still further indoctrinated, as soon as sufficient intelligence begins to manifest itself, with some general ideas of sanitary laws, which, however crude they may be, often prove of infinite benefit to them and to those who, perchance, may come under their guidance.

Though such teachings may not possess more than a glimmering of science, yet, by their practical utility, children are insensibly led

to understand how to avoid all unnecessary exposures and those grosser modes of life so inimical to health. I would not be understood as implying that the dentist should become the *mentor* of his patients, and thus usurp the sphere of the natural guardian, but he may, whilst engaged in the legitimate performance of his professional duties, do much toward correcting popular errors and pernicious habits that are, no doubt, destroying millions of teeth annually.

The hygienic management of the teeth needs no formal introduction, for not unfrequently the subject is brought up by patients themselves, who manifest their solicitude by asking : " Doctor, how can I *prevent my teeth from decaying* ? " At other times, the perceptible neglect, or evident abuse, of the dental organs, will suggest to the operator the propriety of advising, after, however, obtaining from the patient something of his or her habits, in short, discovered in what the error consists, some rational course of conduct, by which, if the evil cannot be remedied, at least, that no further mischief may ensue. If neglect of cleanliness has given rise to the trouble, it becomes the dentist's duty to explain that the teeth being of an alkaline nature, the accumulation of food about them, especially of vegetable matters, a fermentative process, accelerated, no doubt, by the warmth and moisture of the mouth, is established, and which results in an acid product capable of acting on the enamel of the teeth, but still more energetically on the bony structure, thereby causing dental decomposition. On the other hand, should the well being of the teeth be jeopardized by their abuse, whether from hard usage or from the habitual use of acid ingesta, or drinks, such habits should unqualifiedly be condemned, by showing how the biting of hard substances is liable to crack or fracture the enamel, and thus expose the dentine to the operation of external agents ; and that the frequent contact of acids having, as they do, a natural chemical affinity for the alkaline earths of the teeth, induces a disintegration, which, eventually, terminates in the phenomena usually following upon dental caries. It should likewise be shown that the physical, or constitutional, integrity of the teeth depends very materially upon the healthy functions of the stomach, for the habitually faulty performance of the digestive process causes the dissolution of the teeth through acid reactions, as well as inducing, as has

already been intimated, a deterioration in their organic structure from not receiving sufficient nutriment from a circulating medium, rendered, through dyspeptic tendencies, too poor in amount and quality of its nutrient elements.

In regard to the influence which diet exerts on the textures, it should be pointed out to patients that certain kinds of food produce certain effects on the structures, hence the great necessity for a judicious choice in the articles to be used. Although it is generally admitted that man thrives best on a mixed diet, that is, composed of animal and vegetable substances, yet it is equally certain that a due proportion of certain principles should exist in that food, whether mixed or not, in order that each part of the organism may derive the elements of which it is composed. Hence the different tissues require different kinds of nourishment, inasmuch as waste is going on continually, each organ, therefore, deteriorating if not constantly supplied with the pabulum suited to its nature. Some textures demand albumen for their sustenance, some saccharine or amylaceous properties, others oleaginous, or phosphoric, or sulphurous, while others again derive their nourishment from lime in different forms, magnesia, silica, etc., etc., all entering into various combinations to suit the requirements of each and of the whole assemblage of organs, and each having the power to select the food possessing the properties peculiar to its own organization. The phosphate of lime, with a trace of the fluoride or silicate of calcium, together with the carbonate of lime and magnesia, enter largely into the composition of bone, but still more abundantly in that of the teeth. Now, it is perfectly evident that, in consequence of the intermolecular waste, or deterioration already noticed as being constantly in operation, the various portions of the organism can be maintained in their normal standard, only by being well supplied with those materials so essential to their constitutional nature—a condition naturally and very readily effected if such matters are presented or allowed to remain in the food.

The various species of grain, such as wheat, rye, corn, and many others, possess naturally those earthy or calcareous principles alluded to in sufficient quantity for the demands of the economy; but man, from a vain desire to improve on nature, has foolishly devised, through the process known as *bolting*, the means of divest-

ing the grain of the greater portion of its calcareous substances, which always exist on its exterior, and thus deprives the bread that is commonly eaten of some of its most essential properties.

It has been frequently observed that the Scotch, English, French, and German peasantry, and all those nations whose diet consists of the plainest kind of fare, a large proportion of which being coarse, brown, bread, are endowed, as a general rule, with much harder, denser dental structures than those of the more luxurious classes of society.

Unfortunately, until the majority of the people in this age of refinement and false living are educated to a better standard with regard to culinary knowledge, it cannot be expected that they will go back to primitive or natural habits and customs in the preparation of their food, especially here, in the United States, where the most unscientific, I might say execrable, cookery is done. But dentists, being conscious of a gradually increasing defect in the structural condition of the teeth of the younger generations, whether produced by the removal of the necessary earthy elements of their composition from the food, or from the original absence or deficiency in such aliment, they might, I say, whenever the demand for them existed, recommend their regular medicinal administration as a component part of each meal, in such quantities and form as the case may require.

Of course, in adults, where the teeth are deficient in the earthy constituents, such organs are less amenable to remedial measures, and are, therefore, incapable of any great degree of constitutional improvement, but I have long felt it quite possible that, by the early administration, that is, commencing *in utero*, of the phosphatic preparations of lime, to be able not only to avert this condition of the teeth, but to impart a good structural quality to every living offspring. It therefore follows, if this hypothesis be true, that the favorable time for the accomplishment of this object would be to begin with the mother during gestation, previous to the formative stage of the teeth in the child, and continued until the second dentition shall have been completed, a period in life, it is well known, when the absorption and appropriation of all the constituents that go to make up the body are most active. There are cases, also, later in life, when their exhibition would not be inappropriate, but

it will be readily apprehended that in them the object would be more for the purpose of maintaining the teeth at a given standard in quality.

Now, as regards the more eligible forms in which the lime-salts should be exhibited, I am disposed to accord the preference to the hypophosphite, or the lacto-phosphate, as being more easily assimilated. At all events, this hypothesis receives considerable support from a series of experiments instituted recently by Messrs. Dusart and Blanke, of Paris, with the lacto-phosphate on guinea pigs. These experiments consisted in taking a number of these animals, of the same age and size, and feeding them all alike, but giving to one-half of them, (kept apart from the others,) in addition to the usual daily food, a certain quantity of the lacto-phosphate of lime. To mark still more closely the physiological effects of the drug in other conditions than of health, some of each class had a limb broken. Some length of time was allowed to elapse, and then all the pigs were killed and their bones respectively weighed and noted. It was found, after repeated trials, that the bones of those to which the lime had been given averaged invariably thirty-three per cent. more in weight than the bones of those from which the lime had been withheld.

It might be objected that, in view of the natural differences existing between the higher and lower animals, some difference in its physiological effects on the human species might obtain, but the effects of medicines generally on the two orders, when they do occur, are usually so nearly similar, and are so slight, as to be merely nominal.

In conclusion, gentlemen, I will reaffirm that imparting to parents the various sanitary rules respecting the hygienic management of the teeth is a duty which dental advisers owe to them as well as to themselves. There need be no fear, as some have expressed, that the vocation of the dentist will be destroyed by thus instructing the public—that there would be no more decay of these organs—but it should be remembered that, so long as the artificial state into which mankind has been drawn continues, and as long as accidents and the various ills to which flesh is heir obtains, just so long will the teeth be liable to disease, and therefore require dental aid.

Practitioners of the art of dental surgery, whose professional

education is so defective as to render them incapable of giving suitable advice for the proper management of the teeth, should retire at once from the field of practice, and leave it those who are able to advise, as well as to execute. I trust, however, that the day is not far distant when every member within the fold of the profession will not only be competent to inform patients how to preserve their teeth, but also convey the knowledge how to impart good dental organs to unborn generations.

ART. XIII.—THE COTTON TRADE OF THE WORLD.

AMERICAN PRODUCTION AND BRITISH EFFORTS—PROSPECTS OF COTTON GROWTH—ADDRESS OF THE MEMPHIS CONVENTION COMMITTEE.

Memorial to the "Cotton Supply Association of Manchester," England, and to the "National Association of Cotton Manufacturers and Planters" of the United States, and through these Associations to the cotton Spinners of Europe and America :

We, a special committee from the Commercial Convention now sitting in the city of Memphis, Tennessee, as memorialists, represent that we are closely connected with the cotton trade now carried on between Great Britain and America, and deeply interested in all that relates to the progress, prosperity and commerce of both countries.

The extensive mercantile relations existing between the two countries, which are every year increasing in magnitude and importance, render it highly expedient and desirable in the opinion of your memorialists, that more accurate information be given respecting the condition and advantages now afforded for increasing future "cotton supply" in the United States, inasmuch as great interest is now being manifested by the cotton spinners, both of Europe and America, respecting a sufficient supply of the "raw material," at a cheaper price and in greater quantity.

On the 2d of March the memorials of the "Cotton Supply Association," the "Cotton Spinners' Association," and the Chamber of Commerce of Manchester, England, to the Duke of Argyll, the principal Secretary of State for India, in council, urged a special Cotton Bureau for India, inasmuch as they looked to that country for relief in case of failure of supply from America.

The report of the Cotton Supply Association says : "There appears to be little probability that the production of cotton in America will, for many years to come, be adequate to the requirements of this and other countries ; your memorialists, therefore, believe that India is the great source to which they must look for enlarged supplies that are so urgently needed," etc.

Though we hail with pleasure any exertions to increase the supply of cotton in India and all other countries, we can but think that to the Southern States of America, at last, must we look for any permanent increase in the supply of the "raw material." In East India, Egypt, Algeria, and the Levant, as in Brazil, Peru, and the West Indies, there are many difficulties attendant upon any permanent increase in the future growth of cotton, and in furnishing such cotton, at a cheaper price, in sufficient quantity to supply the wants of the world.

Can these countries grow cotton at a cost of six pence per pound? If they cannot, then are they unable to compete with the United States.

EAST INDIA.

In East India the difficulty of obtaining any tenure to the soil; the rude and insufficient means of transportation; the tropical nature of the climate, deluging the land for one-half the year with rain, and parching it with drouth the other half, stamp it as a clime but poorly suited to the growth of a plant requiring so long and so regular a supply of moisture to mature its fruit—all of which make against any speedy increase in the supply of cotton from that country. Out of 16,000,000 acres annually appropriated to cotton growing, the largest yield for exportation was in 1866, (when stimulated by high prices,) and did reach 1,840,648 bales—decreasing in 1867 to 1,508,903 bales, and in 1868 to 1,420,576 bales—averaging three hundred and forty-seven pounds. In the district of Orissa and in Eastern Bengal, when the large crop of 1866 was made, over 1,350,000 souls perished from starvation, produced from putting in cotton lands that should have been appropriated to breadstuffs. It is now predicted that the cotton crop of East India will still further be reduced the present year—declining, perhaps, to 1,250,000 bales.

EGYPT, TURKEY, SMYRNA, GREECE, ETC.

In Egypt a more strict system of irrigation is adhered to, and the heavy expenditures for canal dues, steam machinery and English coal for fuel, to raise water from the Nile, with the high price of cotton lands, joined to onerous taxes exacted by the Government, will discourage to a great degree any further increase in cotton supply. Besides, in 1865, when a large attempt at cotton growing was made, some 350,000 of the population of Egypt perished from actual starvation. The yield that year, 1864-5, was 404,411 bales, and since that time has never been attained. Only 193,035 bales were imported into Great Britain the past year, averaging 500 pounds each.

Though the Viceroy of Egypt and the Sultan of Turkey have both been recently memorialized by the "Manchester Cotton Supply Association," respecting the future growth of larger crops of cotton throughout their dominions, the yield has not increased to any extent in Egypt, and both Turkey and Greece together only exported the past year into Liverpool 12,623 bales of cotton.

Smyrna cut down her fig and fruit trees in 1864, for the purpose

of growing cotton, but has now abandoned it, while the rest of the Levant, except for domestic purposes, has given it up altogether.

BRAZIL, PERU, AND WEST INDIES.

South America is steadily increasing in the production of cotton, but so slowly it does not amount to much. The past year the yield was 180,000 bales more than in the year 1867. But, as the bales in Brazil only average 155 pounds, and those in the West Indies and Peru only 180 pounds, the actual increase for the whole of South America and the West Indies, reduced to the American standard of 500 pounds each, does not amount to over 65,000 bales of cotton for the past year. This increase, however, in South America does not atone to the cotton world for the decrease in the East Indies the past year, which amounts to 88,327 bales, and compared with 1866, to 420,072 bales, and not as many pounds of raw cotton were imported into Great Britain in 1868 as during the year 1866.

Brazil and Peru are dependent almost solely upon irrigation for the production of their cotton crops. The Pernuambuco, Maceio, Bahia, and Santos cottons, so favorably known in the European markets, are produced by damming up the "rigollettas," or rivulets of melted snow that come from the Cordilleras, and thus, during the summer months, furnishing means of irrigation, so necessary in that arid climate to the maturity of the cotton plant. But for the terraces and irrigating canals of Peru, which convey the melted snow from the Andes, she could not grow cotton at all—and even now her crop is very small, for that imported into Liverpool the past year amounted only to 58,911 bags, of 180 pounds—equivalent to a little over 21,000 bales of 500 pounds each. While that of Brazil, although it amounts to 629,502 bales, of 155 pounds each, when reduced to 500 pound bales amounts only to a little over 195,000 bags.

COMPARATIVE VALUE OF AMERICAN COTTONS.

But America is the home of the cotton plant, and the Southern States of America the only country where cotton can be produced successfully and regularly without resorting to the artificial means of irrigation. It is to those States that the trade must, then, look to furnish the deficiency in "cotton supply" for the world.

American cottons are of more general utility, both for warp and woof, than those of other countries. In Europe they are used almost exclusively for warp, while the filling is of India or some other less costly cotton. The world, therefore, requires not only a large supply, and a cheap supply of cotton, but a supply of a peculiar kind, and quality.

There are, properly speaking, now in use three kinds or classes of cotton:

1st. The "sea island," or long staple cottons, grown principally on the coasts of Florida, Georgia and South Carolina. Of this denomination of cotton, comparatively, the consumption is small.

2d. The medium long staple cottons of American growth, denominated in Liverpool, "uplands," and "New Orleans," in the

United States, known as New Orleans, Texas, Mobile, Savannah, Charleston and "Memphis cottons." It is stated that, prior to the war, nine bags of American cotton were used to one bag of all other descriptions put together. The American cottons are used almost entirely in European factories for warp, while the woof or filling is of less costly grades. For the warp or extended threads, strength and length of fibre is especially required; while for the weft or transverse threads of the loom, softness and fulness are the chief requisites. No other cotton is better adapted as to strength and length, either to spin into the higher numbers, or to sustain the tension and friction to which the threads are exposed in the loom.

3d. The short staple cotton, used almost exclusively for weft or filling. It is drier, "fuzzier," more like rough wool, and principally grown in India.

It is, therefore, seen that while the cotton spinners of Europe require only to a limited extent the first and third classes of raw cotton, viz: Sea island and India cottons of the second class, or medium staple cottons of American growth, they need and can consume an almost unlimited supply.

It is the insufficient supply and the high price of American cotton that has driven English manufacturers upon the short stapled native article of India—called "Surat." But so beautifully have the manufacturers reduced the system of mixing the two fabrics, that the more American cotton manufactured in England, the greater will be the necessity for Surat cotton; and the less American cotton that is passed through British looms, the smaller will be the quantity of Surat taken.

It must, therefore, be borne in mind that the great desideratum now for Europe is not simply one of more cotton—but more cotton and at a cheaper price of the character and quality of that grown in the Southern States of America.

If India were to send to Great Britain three millions of bales of cotton, in place of the fifteen hundred thousand she now furnishes, the desideratum would not be supplied—and she would still be most as dependent on America as ever. She cannot grow the needed character of cotton, and the growth of British India must continue to command attention only when better descriptions cannot be obtained.

Although several quarters of the world supply the long staple—and India furnishes enormous quantities of the short staple—the United States of America have hitherto produced the medium and most necessary kinds, and unless American production can be stimulated and increased, the cotton trade of the world must suffer to an enormous extent.

CONSUMPTION OF ENGLAND AND AMERICA.

The cotton interests of Europe and America alone require an annual supply of over 6,000,000 of bales of cotton to keep their machinery moving—whereas, the actual available production of the world will not amount the present year to 5,000,000 of bales.

Granting that East India and the United States may make full average crops of cotton, the most favorable production cannot supply the deficiency.

Say for the cotton crop of the cotton year 1869 :

East India, more than last year.....	1,500,000
Egypt.....	230,000
Turkey, Levant, etc.....	12,500
Brazil, Peru, and West Indies, same as last year.....	707,500
United States more than last year.....	2,500,000
All other sources.....	50,000

Making a liberal estimate of.....5,000,000
for the production of the world, while the consumption is over 6,000,000, leaving the apparent deficit in supply in the "raw material" over 1,000,000 bales of cotton at the end of the present year.

AVAILABLE PRODUCTION OF THE WORLD.

The cotton crop of the world does not now amount to four millions of bales, averaging 500 pounds, and exclusive of the United States, the available production of the globe does not much exceed eighteen hundred thousand bales, of the same average.

How to supply this deficit is the question, and how to supply it with the needed character of cotton.

From the census of 1860 it is ascertained that the cotton crop of the United States for the year 1859-60 amounted to five millions one hundred and ninety-six thousand nine hundred and forty-four bales, of 400 pounds each. The same crop if reduced to bales of 500 pounds each, shows a yield for that cotton year of forty-one hundred and fifty seven thousand five hundred and fifty bales—a larger quantity of cotton than is now produced on the globe. Since 1861 the largest yield was that of the past year, amounting to twenty-four hundred and thirty thousand eight hundred and ninety-three bales of cotton.

We have the same soil, the same peculiar climate, influenced by the Gulf-stream, causing a regular system of irrigation from the clouds wafted from the bosom of the southern seas, and producing the moisture and heat so requisite during the summer months to the health and vitality of the cotton plant. All the natural advantages possessed by the Southern States for the culture of their principal staple remains. But we want labor—and with an abundance of labor the increase of cotton would not only be commensurate with the wants of the world, but the cost of production as the increase progressed would be lessened by an unerring law governing all trade.

At present it is estimated that nearly one-half of the cleared lands of the South are not cultivated, for want of labor, and therefore the cost at which labor is now acquired, and cotton produced, is disproportionately dear.

AREA OF SOUTHERN COTTON STATES, ETC.

The area of the ten largest cotton-growing States—North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisi-

ana, Texas, Arkansas and Tennessee—is six hundred and sixty-six thousand one hundred and ninety-six square miles, or four hundred and twenty-six millions three hundred and six-five thousand four hundred and forty acres. If we add Missouri and Virginia, we embrace a territory of over eight hundred thousand square miles—almost as large as the aggregate area of Great Britain, France, Prussia, Austria and Italy. The single cotton State of Texas is larger than either Great Britain, France, Prussia or Italy, and nearly equal in area to the Austrian Empire. Southeastern Missouri might, with great propriety, be entered in the list, as the Bureau of Statistics at Washington now report nearly as large an average yield per acre from that State as any other, thereby confirming the theory that the “Isothermal lines,” or lines of equal heat, do not correspond with the parallels of latitude, but diverge from given points on the Atlantic seaboard, in a northwestwardly direction, demonstrating the fact that Columbia, in South Carolina, is not much warmer, if any, than New Madrid in Southeastern Missouri, though two degrees farther south.

In confirmation of these scientific observations, the experience of a few years past has shown that Tennessee, which was formerly scarcely considered a cotton State, now ranks high among the cotton producing, and third among the cotton receiving, States; and that lands lying along the northern edge of the cotton belt produce sure and steady crops, being less liable to the “cotton worm” and the “rot,” although the product per acre is not so much as farther south.

PRODUCTION STIMULATED.

From a region, then, of such vast extent, what might we not expect if there were union of effort amongst those interested, to stimulate a larger production? Practically, there is no limit to the cotton production of these States.

If the cotton spinners of the United States of America, whose interests are identified with the cotton planters, who have been favoring railway and wild land speculations in the far West, instead of turning the tide of immigration to the open fields of the South, would now pursue a contrary course and lend us their aid, the production of the “raw material” could soon be increased. If the “National Association of Cotton Manufacturers and Planters” of the United States would direct public attention to the subject, it would materially assist us.

If the “Cotton Supply Association” and the “Cotton Spinners’ Association,” of Manchester, England, would induce a surplus portion of the population of Great Britain and Europe to come among us and assist in cultivating our unoccupied cotton lands, then would Lancashire be greatly benefitted and saved the fear of future “cotton famines,” with the certainty of being furnished the “raw material” at a cheaper price than it can be produced in any other quarter of the globe.

The planters and the ryots of India will not grow cotton except stimulated by high prices. The imperfect system of irrigation, the

constant deterioration of exotic or American cotton seed, necessitating large outlays annually for their importation, the poor means of transportation, and the great difficulty of obtaining breadstuffs in the interior of that remote country, will deter them from risking it and increasing the production to much extent, unless they are paid remunerative prices.

The lands of Egypt are too valuable and the cultivation of the "great staple" attended with too much expense, to grow cotton to any extent at a less price than twelve to fifteen pence per pound. The lands along the banks of the Nile suited to cotton growing, all command from twenty to forty pounds sterling (\$100 to \$200 in gold) per acre. Besides, the arable land in Egypt is confined to a very narrow strip along both banks of the Nile, most of which must continue to be cultivated in cereals for the support of its already overcrowded population. The remainder of the country is but a desert of burning, moving sands—the sport of the simoon and the home of the sirocco.

TENNESSEE, LEVEES, ETC.

We stand to-day upon the soil of a cotton State worth more to the world than the whole of South America and the West Indies. The State of Tennessee is credited in the last annual cotton statement with three hundred and seventy-four thousand eight hundred and sixty bales of cotton, averaging over 443 pounds per bale.

The production of Brazil, reduced to the same standard of 443 pounds per bale, would give a yield the past cotton year of 220,253 bales; Peru, 24,837 bales, and the West Indies, 8,382 bales, making total crop for exportation, 253,477 bales from South America and West Indies. Not more than was received by the city of Memphis the past season; for Memphis received the past cotton year 253,207 bales, and so far this season has already received over 245,000 bales of cotton.

The Yazoo basin, in the State of Mississippi, lying immediately south of Tennessee, bounded on the west by the Mississippi river, and on the south and on the east by the Yazoo, Tallahatchie, and Coldwater rivers, covers an area of nearly four millions of acres, and is worth more as a cotton country to the world than the whole of Egypt. From the Tennessee line to the mouth of the Yazoo, not a stream enters the Mississippi river for 350 miles, possessing, in this respect, superior physical advantages for easy and safe protection to any other portion of the Mississippi Valley.

In 1860 the State of Mississippi produced 1,202,507 bales of cotton; and it is estimated of this amount nearly one-fourth was produced in the delta of the Yazoo. Here was the widest portion of the inland sea which once occupied the lower valley of the Mississippi. Its exceeding fatness is Nile-like, without the aridity of Egypt. Its soil resembles, in fineness, the silt of the ocean's bed, and is enriched by the opulence of the sea and the munificence of the land in the dead organisms of former prolific and vigorous life, which furnish in abundance the lime, potash, and other elements which cotton requires. It is the most fertile and productive cotton

domain on this continent, and Congress should, as an act of justice to the cotton-spinners of the North, and to the cotton-growers of the South, repair at least the "Yazoo Pass," and the portion of the levees that were destroyed for military purposes during the late civil war. With the levees up and secure from inundation, the successful cultivation of the Yazoo delta would alone secure annually an addition to the American cotton crop of 1,000,000 of bales.

CHEAP COTTON, IMPROVED CULTIVATION, ETC.

Cheap cotton, then, and in sufficient supply, is what the world requires and must have. Lancashire and the continent of Europe must obtain cheaper cotton, or their mills must stop. For the past two years they have paid for "American middlings" and "fair Egyptians" an average of over ten pence per pound; and many mills are now closed, or working on "short time," in consequence of the continued high price of raw cotton.

With the levees up, the freedman would seek the alluvial lands of the Mississippi Valley, finding there a better reward for his labor. The climate agrees with him, and he with the climate. With an intelligent white immigration settling upon the "uplands" of the cotton States; with smaller farms and improved seeds; with deep plowing, commercial manures, and enlightened system of cultivation—using all the appliances of improved husbandry, and employing every available means to render the soil increasingly productive—we could easily extend the yield of the Southern cotton crops again to five millions, in place of two millions five hundred thousand bales.

It is estimated that Georgia alone, the present year, has consumed over twenty thousand tons of commercial manures, in guanos and phosphates, improving her cotton lands. The product is doubled by it, the cultivation of one half the area is saved, and the laborer has time to devote to the cereals and fruits, making life on a cotton plantation more agreeable to the habits and tastes of the white man. This revolution has been inaugurated by David Dickson, Esq., of Sparta, Georgia, who last year invested thirteen thousand dollars in commercial manures with great profit, and who, in the midst of his extensive operations, has found time, by judicious selections and crosses, to introduce the best cotton seed in America.

We commend this system to the attention of the cotton trade, because they can safely advise immigrants to come to the healthy and well-watered "uplands" of the South, with a fair prospect of growing cotton successfully, without the constant drudgery which was once thought necessary to its production, and at the same time surrounding their little habitations with the luxuries and comforts which they have been accustomed to in their Northern and European homes. For although necessity may compel the introduction of laborers from the half civilized pagan races of the earth, we confess we have a strong preference for those of a higher stamp, and who will ultimately make good citizens, merged into our population.

CONDITION OF LABOR, ETC.

There is a great mistake generally made in regard to the amount of labor now employed in the cultivation of cotton. When the emancipation occurred the planters made great efforts to associate the laborers together on their large plantations, but the system has been completely broken down and given place to the "squad system," where from two to eight hands only work together, in many instances a single family. The "squad system" on large plantations is much less productive than the old system of associated labor," as there is no concert of action and fair division of labor, according to the recognized laws of political economy.

The freedman is unambitious of accumulation, but shows great anxiety to have his little home, with his horse, cow, and hogs separate and apart from others. Therefore, he strenuously insists on a full grain crop for subsistence of his family and stock, and only a moderate cotton crop. On a majority of the plantations, in projecting the cotton crop, the freed women are entirely ignored, and are left to attend to the household and the garden, except when the season is very difficult, when they give some assistance to their husbands and fathers in the cultivation, and also occasionally in the gathering of the crop. This fact in itself is sufficient to account in no small degree for the disappearance of a large proportion of the efficient labor once directed specially to the production of cotton. Perhaps it is more potent in this direction than the loss by death in the negro population during the late war, now variously estimated from five hundred thousand to one million of souls. The labor most efficient, and now most to be depended on, is that of the older negroes, whose habits of industry have been confirmed. The young negroes growing up since the war are generally idle, fond of pleasure, impatient of the control of their parents, and do not give promise of much usefulness.

The total number of slaves in all the American States and Territories, according to the census of 1860, was 3,953,760. The ten cotton growing States, however, contained but 3,030,245. Of this number not twelve hundred thousand were cultivators of our great staple. The remainder, less the men and women who were too old, and the children who were too young, being employed in other kinds of agriculture, in mechanical pursuits, and as house servants. It would be safe to say that not over half this number (six hundred thousand freedmen) are now employed in the cultivation of cotton. What proportion of white labor is so employed is hard to conjecture; but even estimating it as high as 200,000, that, with the labor of the freedmen, at the high average of three bales to the hand, would not give an annual yield of over 2,400,000 bales of cotton.

It may be that the estimate of 600,000 freedmen, now unemployed in the cultivation of cotton, is too small, and the lessening of the cotton crop may be owing in some degree to the fact that less cotton per head is planted, and more grain, since the war. But it is quite apparent, that if the amount of white labor now engaged in the cultivation of cotton does not amount to one-fourth, it is cer-

tainly on the increase, stimulated by present remunerative prices.

OVER ESTIMATING COTTON PRODUCTION, ETC.

Another mistake generally made, is in over estimating the cotton yield per acre, of the United States. It requires three acres on an average to make one bale of cotton, and only in a few instances does the census record a larger yield.

In 1860, in the parish of Tensas, in Louisiana, and in San Augustine county, Texas, a bale of cotton was made to the acre—weighing four hundred pounds. In East India, the average yield from indigenous or native seed, is one bale for nine acres; but since the introduction of exotic, or American seed, the yield per acre has been greatly improved.

No material increase in the production of cotton can be expected from the Southern States, unless our supply of labor is increased by immigration.

Notwithstanding the remarks of the Hon. Reverdy Johnson, who recently, in the Town Hall at Manchester, assured the people of Lancashire, that "when free labor comes to be properly developed and organized," Manchester would rejoice, not only in four or five, but in a few years, in six or seven millions of bales from America. We are forced to the conclusion that the average yield of the Southern cotton crops, with the present labor system, cannot exceed 2,500,000. Could we grow 3,000,000, it could not be picked out and saved. His hearers, the English people, have had some experience in "developing and organizing free labor" in their West India possessions, for nearly a generation, and they are better judges than that distinguished diplomatist, whose experience extends only over the past three years. Such remarks clearly show what errors men of distinguished abilities fall into, when they leave the sphere in which they usually revolve, and adventure to give opinions on subjects of which they have no practical information.

So far from looking for any speedy increase in the cotton crops of the United States, we fear on the other hand, that labor in cotton culture is fast diminishing. It is from three causes: Emigration from the cotton fields to the towns and cities; the deaths on the plantations; and, the retiring of women from cotton growing. Nothing but the free use of fertilizers, and the best success in cultivating the land planted can keep the average cotton yield with the present labor, up to two and a half millions of bales. The picking power—the quantity that can be picked—is the limit of our capacity in producing cotton; and, even if the present labor could produce more, we could not save more.

We do not think the deterioration of the negro labor will subside here so low as it has done in the British West Indies, on account of the climate of the Southern States being more rigorous, demanding more clothing, and the absence of indigenous and tropical fruits, on which they are fed so largely there. This fact will create a necessity on the part of these inoffensive and easily contented people, for a larger amount of work to secure their subsistence. But for this

difference the results in both countries would be identically the same.

IMMIGRATION, ETC.

Improved lands can now be had in any of the cotton States at prices varying from one to five pounds sterling—five to twenty-five dollars—per acre, and farming utensils and work stock can be purchased at fair prices. The great aversion that proprietors formerly had to the subdivision of their plantations is now rapidly giving way, and lands can now be purchased or leased in convenient lots of any size. Whilst we candidly admit that there is a great aversion in the Southern mind to political adventurers, who come into our midst for the sole purpose of foisting themselves into office, we can insure immigrants, no matter from what quarter they may come, who are honest and industrious men, who come to seek homes among us, and to add to the wealth and prosperity of the country, that they will meet everywhere with a friendly and most hearty welcome.

With the many inducements now presented to purchase cheap, healthful lands and comfortable homes, in a country possessing natural advantages unequaled in any other portion of the cotton world, does it not behoove the cotton trade, both of Europe and America, to direct public attention and immigration to us, and aid us in working our unoccupied cotton fields? By so doing, they would indirectly benefit themselves, and very materially aid us. Every variety of climate and soil is presented in the cotton belt, stretching from the Atlantic to the Rio Grande, and from the Ohio river to the Gulf of Mexico.

The sun of heaven shines not on a land more varied in soil, climate, and production, or better fitted for the habitation of man.

In consideration of all these advantages, your memorialists ask that the influence of your associations be exerted in directing intending emigrants to these States—believing them to be the best cotton producing districts on the globe—and that with requisite labor there is no limit, practically, to their facilities for the production of raw cotton—and that, too, at the comparative low figure of six pence per pound.

ROBERT T. SAUNDERS,

Memphis, Tennessee, Chairman.

NOTE—In this memorial the average of the Liverpool Cotton Brokers' Association for American cotton is adopted, viz: four hundred and forty-three pounds per bale. Memphis cotton is much heavier, four hundred and seventy-five pounds per bale being the average the past season, as shown from the books of Branson Bayliss & Co., cotton brokers, Memphis, Tennessee.

ART. XIV.--DEPARTMENT OF AGRICULTURE.

[From the May and June Report of the U. S. Department of Agriculture.]

THE ESPARTO GRASS.

Two years ago efforts were made by this Department to obtain information concerning this paper fiber, and to obtain seed from Spain for propagation. Recently official inquiries have met with the following response from the United States Consul at Newcastle-upon-Tyne, England :

“ UNITED STATES CONSULATE,
“ Newcastle-upon-Tyne, May 15, 1869. }

“ Sir—According to request I have instituted inquiries relative to the possibility of transplanting the Esparto grass for culture to America, and the economy of its use in the manufacture of paper.

“ I have communicated with Dr. Hooker, director of the royal gardens at Kew, on this subject, and with Daniel Oliver, keeper of the royal herbarium, both of whom have responded most kindly. I have also received communications from Spain and visited one of the oldest and most successful paper-mills of England, where the Esparto grass is exclusively used. There are important points of information that I have not yet received, such as the rainfall, degrees of heat and cold, etc., etc., of the best Esparto producing districts.

“ The soil best adapted to its growth is a very sandy soil, and slopes or hill-sides (not too steep) are said to be the best, in a warm but not too dry climate.

“ This grass is gathered or harvested by pulling, not by the roots, but by a quick jerk of the hand to disjoint it above the roots, so as not to destroy the latter, and also to avoid a mixture of the hard, woody portion of the plant, which would have to be separated from the grass before suited for use at the paper-mill. The hands must be protected by heavy gloves, as the grass is very sharp. Considerable skill is required in pulling the grass without destroying the roots. If properly gathered there is no woody fiber to be rejected in the process of manufacture.

“ The grass is dried just as hay would be, and bound in bundles by ropes twisted from the grass itself, and then is ready for the paper-mill. It costs from \$20 to \$30 per ton in England, in Spain about \$5 less per ton. Last year the amount imported into England was 95,000 tons.

“ The process of manufacturing paper from this grass is no more difficult than from rags, and far more pleasant. No infectious or contagious diseases or poisonous insects being carried by it, and the processes are so similar, except in the amount of chemicals required, that a description is almost needless.

“ I have been through the works of Messrs. William Hurry and Albert Richardson, at Sarrow-on-Tyne, Durham county, England, and these gentlemen kindly pointed out all the steps in the process, and gave me specimens of the grass and paper. They produce 30 tons of paper per week, using from 50 to 60 tons of Esparto grass. No rags are used. The average cost of the Esparto is \$25 per ton. The machinery is propelled by a 100 horse-power steam engine. Eighty-three women and girls are employed in sorting and boiling the grass; 14 men and boys in washing and beating; 30 in finishing; 17 on machines and cutting; 8 mechanics; 6 engineers and fireman; and 10 ordinary laborers—168 in all. This estimate includes the manufacture of all their own chemicals.

“ The first step is the assorting of the grass, or separating it from roots, weeds, and flowers. Fifty girls are needed for this part of the work. The grass is laid

upon tables of wire, so that all small bits of dirt or leaves may fall through as the work of separation goes on. The loss of weight sustained in this process is three to five per cent.

"The grass is then put into large sacks and goes below, where it is put into boilers. Formerly the boilers were open, broad circular vessels, but are now cylindrical and closed, so that a pressure of steam of 20 to 25 pounds to the square inch can be given to add to the effect of the chemicals. The boiling is by steam. In these boilers 10 per cent. of caustic soda (N. O. A.) is introduced; that is, 10 pounds of caustic soda to 100 pounds of Esparto grass, more or less soda according to the fineness or coarseness of the grass and the time given in the boiling. The grass is boiled ordinarily five or six hours in the soda, being kept revolving or stirred in the boiler. The water is then run off and pure water supplied, and the grass again boiled for about an hour, to get rid of the resinous soap formed in the first boiling by the gum of the plant uniting with the soda. It is further washed with cold water and then discharged into large oval tubs or vats, and again washed with pure water. Then bleaching powder is added—two to two and a half hundred-weight containing 35 per cent. of chlorine (chloride of lime) to a ton of Esparto. It is revolved in three bleaching tubs till white, the tubs containing 500 pounds to 1000 pounds each. Four to eight hours is required for this process; four or five hours will be sufficient unless it is thought desirable to use a smaller quantity of bleaching powder. The fiber, when thus bleached white, is pressed to free it from the bleaching liquor, and then placed in the beating engines, where it is washed for half an hour to free it from the remaining bleaching liquor, and then revolved in the beating engine the same as rags are treated, until it is reduced to a sufficiently fine pulp. The size, alum, and color (when color or toning is required) are added, and the pulp is run off into vats or reservoirs ready for use.

"In reducing the pulp to paper, my attention was called to but one point of difficulty not encountered in reducing rag pulp. This occurs just after the pulp changes from the liquid state and takes the sheet form. The material at this stage is less tough and tenacious than when made from rags, and the difficulty is in getting it to enter the press-rollers. But a little management and experience overcomes the difficulty, and the paper when finished is even stronger than that made from rags.

"The amount of paper produced is 50 to 55 per cent. of the weight of the Esparto grass as it reaches the mill. The loss of weight is as follows: three to five per cent. roots, weeds, flowers, etc.; 25 per cent. extractive matter soluble in the caustic soda, and 20 per cent. destruction of fiber in bleaching and mechanical loss.

"All qualities of paper are produced except the very thin writing paper, which may be produced with a little more mechanical skill. I inclose sample of the paper from Messrs Richardson & Co.'s mills. No. 1 is an excellent quality of white printing or book paper; No. 2 toned printing or book paper; No. 3 account book paper; No. 4 a specimen of the best paper that could be made from Esparto grass in 1860, which was manufactured by Routhedge, at Eynsham, Oxfordshire. Messrs. Richardson used a mixture of rags at first, which can be done in any proportion, but for the last three years they have used only Esparto grass. They procure the grass from the east coast of Spain, from Cartagena to Almeria; the best comes from Almeria. They have used a little from Morocco and Algiers, but it required more soda and bleaching powder, and never became so white as that from Spain. The Esparto grows not only in Spain and North Africa, but in various localities along the Mediterranean, Italy, Sicily, Sardinia, and in Portugal.

"But the question which most of all interests Americans is its propagation in the United States. Dr. Hooker has written me that he has no doubt but that the Esparto grass would thrive in the United States, and he strongly advises that the introduction be made by seed, not roots, and says it should be started in the nursery and the young plants set out afterwards. Mr. Oliver, who is also one of the best botanists in this country, thinks one of the two species, *Lygeum spartum*. (soft,) being a creeping rhizomatous grass, might be transplanted by being sent over in Wardian cases well rolled in sand, or in cases filled with sandy soil and buried in nearly pure sand. The other species *Macrochloa tenacissima*, is supposed to be caespitose, and he thinks this mode of packing might not suit it so well. He also recommends trying seed.

"If the *Lygeum spartum* is a creeping rhizomatous grass it would be likely to spread very rapidly, and once rooted a few plants would soon cover a large tract of country.

"I send you some samples of both species of the grass. No. 1, best quality of grass, clean, ready for use; No. 2, specimen taken where the previous crop had not been gathered, so that the dead grass is mixed with it, but the latter decomposes and disappears in the process of manufacture, and only lessens the per cent. of paper per ton; No. 3, specimen contains butts of the grass and roots that should not be gathered with the grass, also some heads; No. 4, the same of the other species; No. 2, wild sage often found growing with the Esparto."

"I remain your obedient servant,

"J. W. McCHESNEY,

"United States Consul.

"HON. HORACE CAPRON, Commissioner."

[From the May and June Report of the U. S. Department of Agriculture.]

IXTLE FIBER.

A letter has been received by the Commissioner of Agriculture, dated Harlem, New York, from Hon. J. McLeod Murphy, accompanied with three skeins of the ixtle fiber, or *Bromelia sylvestris*, each produced from a single leaf, of which a single plant might average twenty. A package of hacked fiber of the same material is received, and another containing small samples of fishing tackle, which may seen in the museum of the department. The following is the substance of the communication:

"First of all, before I describe the plant and the method of its cultivation, I beg to call your attention to the extraordinary length and strength of the individual fibers, their susceptibility of being divided almost infinitesimally without breaking, their flexibility without *kinking*, and the readiness with which they receive and hold vegetable or chemical dyes without being impaired. Since my return from Mexico I have had little or no opportunity of testing this plant practically; but some samples, such as I send you, were given to an old and experienced maker of fishing tackle, and he does not hesitate to pronounce the ixtle fiber as superior in every respect for the manufacture of trout and other fishing lines, not only on account of the readiness with which it can be spun, its extraordinary strength, but its perfect freedom from kinks when wet. The only secret, if there is one, consists in the preliminary precaution of boiling the fiber (as you have it here) before twisting it. In this one respect it will supesede the use of silk.

"Apart, however, from its use as a thread, I hazard nothing in saying that it forms the best paper stock that can be obtained. I speak now in reference to the imperfect, withered, rejected, and dried leaves, from which the fiber cannot be conveniently extracted by the indifferent mechanical means that the Indians employ. Although I have no samples of paper made from this source just now at hand, yet I can assure the Department that several magnificent samples of paper for banking and commercial purposes have been made by manufacturers in the Eastern States, from the dried leaves of the ixtle plant brought from the neighborhood of Tabasco.

"The samples of fiber I send with this were obtained by the most primitive means, viz., by beating, and at the same time scraping, the leaf of the plant (in a green state) with a dull machete. Then, after the removal of the glutinous vegetable matter, it is combed out and rubbed between the knuckles of the hand until the fibers are separated. The next step is to wash it in tepid water and bleach the skeins on the grass. This is the method pursued by the Indians on the Isthmus of Tehuantepec; and the average product for the labor of a man is from four to five pounds per day.

"It is scarcely necessary to tell one so well informed as yourself that this spontaneous product is the *Bromelia sylvestris*, which differs in some respect from the *Agave Americana*, the *pulque de maguey*, and *Agave sisalana* of Campeche; a difference arising solely from soil and climatic influences. The name *ixtle* is given to that species which is characterized by the production of the long fiber; and chiefly because the leaf, being shaped like a sword, has its edges armed with

prickles, similar, in fact, to the weapon formed from *itzi*, or obsidian, used by the Aztecs. Hence the term. The *pita*, on the other hand, although obtained from a variety of the same plant, is a coarser and shorter fiber, which grows in the *tierrastempladas*. The name comes from the word *pillet*, which is given to the plantations of the pulque plant in the uplands of Mexico. But the peculiarity of this ixtle is that it grows almost exclusively on the southern shore of the Mexican Gulf, or in what is known as the "sota vento," that is to say, between Alvarado and Tabasco, and extending as far inland as the northern slopes of the dividing ridge which separates the Atlantic from the Pacific. The points generally selected for its cultivation are the edges of a thick forest, for which the small undergrowth is removed by cutting and burning. The roots of the plants are then set out at a distance of five or six feet apart; and at the end of a year the leaves are cut and "scraped." The chief object is to obtain a constant shelter from the rays of the sun, which would otherwise absorb the moisture and so gum the fibers together as to make them inseparable.

"The average length of the leaf is six feet, and the time to cut it is clearly indicated by the upward inclination it makes. In other words, the radical leaves cease to form curved lines with their points downward, but stiffen themselves out at an angle as if to guard the source of efflorescence. When the ixtle is young its fibers are fine and white, but as it grows in age they become longer and coarser; and in a wild state the thorns are very numerous, but by cultivation they are diminished both in size and number, and in many instances there are none at all. Where any quantity of leaves require to be handled, a pitchfork would be very useful, especially if gathered for paper stock. A few days after cutting the sun would dry them out, the thorns would drop off, and then they could be easily baled. Independent of the great value which the ixtle has for textile fabrics and for paper, it possesses many valuable medicinal properties, to which I need not allude. It requires no labor to cultivate it, and no insect is known to feed upon it. It grows everywhere in the primeval forests of the Gulf coasts, and, in my opinion, is far superior to any of the grasses for textile fabrics. But as yet no mechanic has succeeded in devising a means of effectually extracting the fiber, and until this is done I presume that its real commercial value will remain unappreciated.

"You will readily discover the superiority of the ixtle over the *Jenequin* (*Agave sel olifera*) of Cuba, or the hemp which comes from Sisal and Campeche."

[From the Chicago Railway Review.]

PRACTICAL ENGINEERING.

At a regular meeting of the New York Society, held at Cooper Institute, a paper was read by Dr. A. W. Hall, of New York, on "Steam Plows and their relation to the Bread Supply."

He referred to the universal skepticism that prevails in regard to the possibility of ever introducing economical steam cultivation into this country and the abortive attempts made to accomplish that result, explaining the causes. The progressive civilization of the world seemed to point to the steam plow as the crowning triumph of agricultural engineering. The necessity for a labor-saving invention was always the precursor of its introduction. He referred in proof of this assertion to the steam engine, cotton gin, sewing machine, locomotive, steamboat, lightning printing press, reaper, mower, thresher, etc., which were, one by one, thrown to the surface, at the very time they were most needed. He thought that the farmer was now provided with every facility for harvesting and preparing for market ten times the grain produced, and that this, by the unerring logic of events, was the exact time for the steam plow. He gave an interesting solution of the problem relating to the supposed incompatibility between the employment of the labor-saving machinery and the interests of the working classes, and referred to the fact that we annually consume nearly all the bread produced, and that a single failure of the crops throughout the country would prove disastrous without greater facilities for cultivating the soil.

He then proceeded to classify the various systems or plans for steam tillage that had been tried from time to time, naming, as the first plan, all those locomotive machines which draw plows by the traction of driving wheels on the surface of the ground. He showed that the cause of their failure was the great weight, complication, and difficulty of operation on wet, irregular or hilly soil. He named the rotary spade as the second class, which used the steam engine to propel a shaft armed with spades, cutters, or forks, for disintegrating the soil; but such machines were liable to the same objection, to some extent, as the first plan mentioned, besides the more fatal objection of the very small amount of work possible to be done compared with a regular gang of plows. He then reviewed the English system as the third plan, and discussed at some length its *modus operandi*, the fact that these plows are already at work on over 1000 farms in England, Egypt and British India entitling it to more than a passing notice. The English first tried a single engine, but have finally adopted two, one on each side of the field connected by a wire rope which is alternately wound on the drums of the two engines, one paying out rope while the other windlasses the plows which are attached to the rope. He alluded to the various devices for supporting the rope from dragging. This plan, though requiring a large outlay at the start, as well as great wear of the rope, was, nevertheless, thought by the English farmers vastly superior to animal power, all this is considered, though, too expensive to ever come into use in this country.

He finally called attention to a device of his own, as the fourth class, which consisted of a light and simple engine placed on a wagon truck and provided with two or three sets of traction rollers to impinge on the opposite sides of a wire rope stretched across the field and anchored at its ends. The engine has only to turn these traction pulleys to draw itself and the plows or other cultivating device back and forth across the field, the rope being re-anchored as the plow advances. He compared it with the English, or Fowler system, and showed that it costs only one-third as much, and required only half the length of wire rope, which, unlike the English plan, is never dragged at all, being only picked up and laid down as the engine passes, and that it was not limited to small fields as in the windlass plan, but was adapted to any sized field for which sufficient rope could be obtained.

The reading was succeeded by a discussion. Several plans not embraced in the paper were mentioned by gentlemen present, and the proposition to use rubber tiers for wheels, in steam plowing was alluded to by Mr. L. Holmes.

From the May and June Report of the U. S. Department of Agriculture.]

STEAM PLOWING IN NEW JERSEY.

An interesting trial of one of the Fowler double-acting steam-plows has just occurred in Burlington county, New Jersey, upon a tract of 32,000 acres owned by Colonel William C. Patterson, of Philadelphia. Several hundred acres were planted in beets in 1868, with a result so successful that the proprietor determined to initiate and undertake the manufacture of beet sugar on a large scale, and is making arrangements of a magnitude commensurate with the extent and importance of the undertaking.

The Commissioner of Agriculture was present during several days' plowing, and returned more than ever convinced of the practicability and necessity of introducing steam generally in the culture of all lands in the country adapted to this improved mode of culture.

The gang of plows consisted of twelve, six operating at a time, driven by two fourteen-horse power engines, one at each end of a series sixty rods furrows; the breadth cultivated at one movement was seventy eight inches, the depth eight inches, and the furrows were laid with faultless regularity, at a rate of speed which would insure the perfect plowing of at least eighteen acres per day, and under very favorable circumstances twenty-five acres. The machine was guided easily by one man, and reversed at the end of the furrow without a moment's loss of time. The surface was rough, though the soil was a sandy loam, easy of cultivation.

Two other steam-plows of the same manufacture are already in use in this country, one in Louisiana and one in the West. The successful use of these machines must stimulate the introduction of others, or, better still, the more perfect adaptation by American inventors of steam cultivating machinery to the wants of American agriculture. It should be remembered that the principle upon which this machine is built was first applied in an American invention of more than thirty years ago.

It should be mentioned that Colonel Patterson has also in view the feeding and improvement of stock, and to this end he has already obtained a large number of English mares, of the most approved blood, for breeding purposes.

WHAT GERMAN EMIGRANTS CAN ACCOMPLISH IN LOUISIANA.

My place is on the bayou Opaksha, six miles from Washington, in the parish of St. Landry. I engaged two families, composed of six men, two women and four children. I supplied them with teams and all necessary agricultural implements and engaged to furnish them with their supplies of all kinds until they could gather crops. I made them no charge for the use of my teams, and gave them the land free of rent, provided they remained on it the second year and entered into stipulations with me.

My Germans, pleased with the prospect before them, labored with untiring zeal. Their plowing was thorough and their preparation of the land careful beyond anything I have ever seen. It was their first attempt at cultivation in this country. Some of them had been in the State a couple of years, others only a few months. They did not get to work before the fifth of March. They lost much time in going to distant parts of the plantation to witness the actual operation of planting performed by others, for, understanding but little English, their instruction was obtained almost entirely from observation. But they were at work early and late, and their fields were at all times models of neatness. Up to the 15th of August there not had been a case of sickness among them. About this time we had almost daily rains, and eager to secure their splendid crops, they, in many instances, exposed themselves unnecessarily. The result was chills and fever. And yet they worked on and only laid up when physically incapable of farther exertion. The chills disappeared with the advent of cool weather. They ate but little corn bread. They had full supplies of flour and coffee. I was determined that the experiment should be complete, and refused them nothing. The results of their labors are as follows:

Wm. Schenecke, wife, two children, and one assistant, an indifferent laborer, seven bales and 250 pounds cotton, which netted.....	\$ 863 42
Four hundred barrels corn, worth.....	240 00
	<hr/>
Supplies furnished.....	\$1,103 42
	<hr/>
Net profits.....	\$ 340 00
	<hr/>
Net profits.....	\$ 763 42
	<hr/>
Louis Law, his wife and son, five bales cotton, which netted.....	\$ 554 66
Two hundred barrels corn, worth.....	120 00
	<hr/>
	\$ 674 66
Supplies furnished.....	218 00
	<hr/>
Net profits.....	\$ 456 66
	<hr/>
Charles Yetting and one assistant, eight bales cotton, which netted.....	\$ 827 12
Four hundred barrels corn.....	240 00
	<hr/>
	\$1,067 12
Supplies furnished.....	100 00
	<hr/>
Net profits.....	\$ 907 12

I think this exhibit a very satisfactory one for raw Germans, without knowledge of our modes of culture and unacclimated. They all came to the city after securing their cash, hired additional hands, purchased my teams, rented as much of my land as they could cultivate, and are confident of securing an independence in a few years.

Permit me to add they received from my neighbors a warm welcome. Their labors have been encouraged; their persistent industry and gentle and quite deportment have made them warm friends.

W. O. DENEGRÉ.

New Orleans, February 10th, 1869.

THE COLD WINTER IN FLORIDA.

A letter to the United States Commissioner of Agriculture, from St. Augustine, Fla., says:

The destructive effects of the terrible freeze of Christmas eve and morn of 1868, in Florida, are worthy of careful note and record in as many fruit locations, and as widely as possible, for the benefit of future fruit culturists in the South. It differed from the severe freeze of February, 1835, when the mercury sank to 7 degrees above zero, and all kinds of fruit trees were killed to the ground, yet that cold was more local and less general than the late freeze.

In 1835 the severity of the freeze did not extend below 27 degrees north latitude, while the late cold extended as far south as Key West, in 24 degrees north latitude, where a heavy black frost was experienced, and it is said that ice formed on the north side of the island of Cuba.

The freeze of February, 1835, occurring later in the season, when the sap had begun to ascend and the young growth and blossoms had begun to make their appearance in the orange and other like kinds of fruits, the trees in this forward condition were more susceptible to injury than at Christmas, 1868, when loaded with the ripe fruit of the previous season's growth; hence with the orange and a few others of that family of trees the crop of fruit which was frozen solid upon the trees was the most serious loss. But among that tribe of fruits we have to report the citron, heretofore believed to be hardy, together with the lime, the Sicily lemon, the rough or sweet-skinned lemon, and also the guava, the custard apple, the banana, and the pine-apple, besides many other shrubs, plants, and flowers, have been killed to the ground by the freeze of Christmas last, although the mercury in the thermometer did not sink below 20 degrees above zero at St. Augustine. The loss of oranges and lemons that were unpicked and frozen upon the trees was very large, probably near 10,000,000. Added to this must be a large proportion of the recently budded trees, that had not attained a firm establishment in their new situations to enable them to resist so severe an attack of the cold, and probably three-fourths of all the buds set last year, and many of the newly set trees, were killed.

Among the fruits that withstood the severe cold may be reckoned all the varieties of the orange, the Valencia, (an excellent variety,) the sweet lime, and the shaddock. All these, on thrifty and well-established trees, have proved themselves hardy, only shedding their leaves, which are now coming out again luxuriantly, and both foliage and blossoms give promise of a good crop of fruit the coming season.

SILK CULTURE IN CALIFORNIA.

L. Prevost, the pioneer silk-culturist of the Pacific coast, writes as follows in a recent letter, from San Jose, to the Commissioner of Agriculture:

"The success of all those who have engaged in silk culture in different parts of California is a proof that the whole State is adapted to that great industry; but

the extraordinary success of three persons in Los Angeles county surpasses my most sanguine expectations and all I have said about that culture. Finding the report so extraordinary, I went there to see, and found everything as stated. Believing that this locality would be the silk centre of the Pacific coast, I moved my mulberry trees down there, and made two large plantations. I brought back with me mulberry shoots of one year's growth 14 feet long, to show the capacity of the soil. There are millions of acres of this rich mulberry soil, giving ample room for all wishing to engage in the culture. The climate is very healthy, and the finest I have seen. Mr. Garey planted, in February of last year, 10,000 cuttings, in nursery style, on one acre of land, and began to feed from these cuttings in May following. During the season he fed 120,000 worms, which gave 120,000 good cocoons—as here every worm makes its cocoon. After the feeding and raising of his 120,000 cocoons, his cuttings were in the fall five to twelve feet high. Where is the country that can beat that? There is nothing on record in any silk country approaching such results. Many may not believe it, but if they will come here they will find out that it is so.

“As my object was to be useful to my country, you have no idea how happy I now feel to see my productions, and, in fact, all I have said in favor of that rich industry, so far surpassed by reality. I have hope now of seeing the United States exporters instead of being importers of silk. The success of the few men in southern California has led others to the establishment of a great many plantations there, and many persons are preparing for the next season. It is my opinion that next year all those who will be deceived by that big humbug of *white pine* will turn their attention to this direction, as being the surest and safest employment, as all will have the same chance, and it will last for them and their children, and instead of ruining their health, will improve it.”

LAND DRAINAGE IN CALIFORNIA.

During the past year an interesting example of drainage and reclamation of land has occurred in the case of Sherman's island, California, lying at the head of Suisun bay, between the Sacramento and San Joaquin rivers. The island is about 12 miles long and three miles wide, containing 14,000 acres, and having an alluvial soil of great depth and richness, capable of the most extraordinary production. As it has heretofore been subject to overflow at all high tides, as well as to devastation by occasional floods, very great disadvantage has been experienced in efforts at cultivation, and a large share of the land has been left to its native growths of rank grass and tule. But within the past year the proprietors of the island, organizing under provisions of a law recently passed by the State Legislature, have undertaken the complete reclamation of their lands. The island has been surrounded by an embankment 47 miles in extent, averaging five feet in height, in the course of which 30 self-acting water gates discharge the drainage of the land. The cost of the works, including dams and levees for several sloughs, was about \$80,000. Entirely satisfactory results have been obtained in insuring the safety of crops and in enhancing the pecuniary value of the land. During the past year 4,476 acres of land were sold at an average price of \$12 69 per acre, the greater part having been put in market in order to meet taxes arising from the cost of reclamation. Very little land is now offered for sale. The anticipations of the present holders may in some degree be appreciated in view of the fact that in 1864, on one rancho fronting the Sacramento river, after the land had been cleared by fire, wheat was sown in the ashes of the burned surface-soil, without plowing, and produced a crop of 69 bushels to the acre. A subsequent “volunteer” crop produced 52 bushels per acre; and the third year, although plowed and sown late in the season, 15 acres of this land produced 50 bushels per acre. Statements not less remarkable are made respecting the growth of fruit and vegetables on other farms.

ART. XV.—DEPARTMENT OF COMMERCE.

REPORT RELATIVE TO THE PASSES AT THE MOUTH OF THE
MISSISSIPPI RIVER.

At the monthly meeting of the Chamber of Commerce, held on Monday, 5th inst., the following report was submitted, in reference to the depth of water found at Southwest Pass and at Pass-a-l'Outre, by the deputation sent from the Chamber :

NEW ORLEANS, July 2, 1869.

To the Chamber of Commerce of New Orleans :

The undersigned, on behalf of the Chamber of Commerce, availing of the invitation given by Collector Casey, left this city on the morning of Thursday June 24th, on board the United State revenue cutter *Wilderness* to examine the bars at Southwest Pass and at Pass-a-l'Outre.

Having landed at Pilot Town, Capt. Freeman, of the cutter, invited several of the old pilots to assist in taking soundings, after which we proceeded down the Southwest Pass, with Pilots Smith, Higgins, Chism, Osgood, etc., on board.

Arrived opposite Stake Island, about 7 p. m., soundings were taken, proceeding outwards, with the following result, as reported by the leadsmen of the cutter :

Feet.	By the mark.	Feet.
No bottom at $\frac{1}{2}$ less 5 fathoms.....—	By the mark.....	18
No bottom at mark 5 fathoms.....30	18 $\frac{1}{2}$
By the mark 5 fathoms.....30	18
No bottom at 5 fathoms.....30	18 $\frac{1}{2}$
No bottom at 5 $\frac{1}{2}$ fathoms.....31 $\frac{1}{2}$	18
By the mark 5 fathoms.....30	18 $\frac{1}{2}$
And a quarter 3 fathoms.....19 $\frac{1}{2}$	17 $\frac{1}{2}$
And a half 3 fathoms.....21	17 $\frac{1}{2}$
Scant 3 $\frac{1}{4}$ fathoms.....19	17 $\frac{1}{2}$
Scant 3 $\frac{1}{2}$ fathoms.....19	17
Scant 3 $\frac{3}{4}$ fathoms.....19	17
By the mark 3 fathoms.....18	16
..... 3 $\frac{1}{4}$	16
..... 3	15 $\frac{1}{2}$
..... 3	17
..... 3 $\frac{1}{4}$	17
..... 3	16
..... 3 $\frac{1}{2}$	16
..... 3	17
..... 3	15
..... 3	17
..... 19	17 $\frac{1}{2}$
..... 19	16
..... 18	16
..... 18	18
..... 17 $\frac{1}{2}$	15
..... 18	16
..... 17 $\frac{1}{2}$	14
..... 17 $\frac{1}{2}$	28 $\frac{1}{2}$
..... 18 $\frac{1}{2}$	32 $\frac{1}{2}$
..... 18	30
..... 18 $\frac{1}{2}$	

Having cross the bar of the Southwest Pass outwards, we returned and took soundings coming inwards, as follows :

	Fathoms.	Feet.		Feet.
Mark under water.....	5½	31½	By the mark.....	17
By the mark.....	5½	34½	..	17
..	5½	33	..	17
..	4½	25½	..	15
..	4½	28½	..	17
..	4½	28½	..	17½
..	3½	22½	..	16½
..	3½	22½	..	16
..	3½	22½	..	17
Opposite outward East Buoy...	24½		..	17½
By the mark.....	17		..	14½
..	17½		..	17½
..	17½		..	18
..	15		..	17
..	15		..	15

FRIDAY, June 25, 1869.—The revenue cutter Wilderness, Freeman, commanding, left opposite Pilot Town, at 5:30 A. M., bound out the Southwest Pass, and again took soundings, beginning opposite Stake Island, at 5:50 A. M., (the tide being full 14 inches higher than last night,) with the following result:

	Fathoms.	Feet.		Feet.
Opposite Wreck Buoy at 5:55 A. M.			Opposite East Breaker or Barrel Stake.....	17½
By the mark.....	3	18		18
Mark under water.....	3	18½		18½
Scant.....	3	17½		19½
Mark under water.....	3	18½		17½
..	3	18½		15½
..	3	18½	Opposite East Outward Buoy.....	17½
Opposite Cleopatra Buoy.....	17½		Mark under water 3 fathoms.....	15
	16½		By the mark, 4 fathoms.....	15
Opposite East Flag Buoy.....	17		Sounding at S. W. Pass finished at 6:03 A. M.	
	17½			

IN GULF OF MEXICO, Friday, June 25, 1869.—The U. S. revenue cutter Wilderness arrived outside Pass-a-l'Outre at 9:15 A. M., and found the American ship Lizzie Moses, drawing 18 feet 3 inches, had passed out the same morning and was waiting a wind. The captain reported he had had no trouble in doing so, having been taken out by the steamer Essayons, which is owned and employed by the Government in deepening the channel at Pass-a-l'Outre.

The Essayons having fouled her chain round her forward screw, was waiting in deep water for its release.

The deputation from the Academy of Sciences and Chamber of Commerce, also the representatives from the city press, were taken on board the Essayons, and after examination of her hull and machinery, etc., later in the day, she proceeded inward to Pass-a-l'Outre, and on arrival at the bar took soundings, commencing at 3:30 P. M., with the following result:

Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.
17½	16½	17½	18	17½	17½	16½	16*	17	17½
16	16½	17½	18	17½	17*	16	16*	17*	18
17	16½	17*	18	17½	17½	16½	16*	17½	17½
16½	17	17	18	17½	17½	16½	16	17*	18
17½	17	17	18	18	17½	16½	16½	17½	18
17½	17*	17*	18	18	17*	16	16½	17	18
17½	17*	17*	18	18	17½	16	17	17	18½
17	16½	17*	18	17½	17½	16*	17*	17½	19
17	17	17½	18	17½	17½	16*	17	17½	19
17	17*	17½	18*	17½	17*	16½	17*	17	19½
17	17*	17	18	17½	17	16½	17½	17	19½
17	17½	17	18	17½	17½	16½	17	17½	20
17	17½	17	17½	17½	17*	16½	17	17½	
17	17½	17	17½	17½	17½	16½	17	17	
17½	17½	17½	17½	17½	17	16*	17	17½	
17	17½	17½	17½	17	17*	16	17	17½	
17	17½	17½	17½	17½	17	16	17	18	
17	17½	17½	17½	17½	16½	16½	17	17½	
16½	17½	18	17½	17½	16½	16½	17	17½	

Finished taking soundings at the Upper Can Buoy at 5 p. m.

For the better understanding of these soundings, we beg to state that the course of the steamer *Wilderness*, at Southwest Pass, and of the *Essayons*, at Pass-a-l'Outre, was shaped by their respective pilots so as to find the deepest channels. Also that to ascertain the depth at mean low tide, twenty-two inches would have to be deducted from the soundings at Southwest Pass, and twenty-four inches at Pass-a-l'Outre. This gives one foot ten inches (1 foot 10 inches) greater depth of water in Pass-a-l'Outre than in Southwest Pass.

The actual depth of water on the bar fluctuates daily with the tide, and this again is materially affected by the direction, duration, and force of the wind.

After a careful and impartial examination, we pronounce in favor of Pass-a-l'Outre, as at present, the most desirable outlet of the Mississippi river, for the following reasons :

1. The greater depth of water on its bar ; which is being steadily increased by the dredging operations of the Government steamer *Essayons*.
2. The straighter course and more uniform bottom of its channel, which is of importance to deep draft vessels that may get aground on the bar.
3. The stronger current that prevails there, which will assist the dredging operations, and at the same time help to wash out any vessel that touches bottom there.
4. The easterly direction of the Pass makes it more eligible for the great bulk of outward and inward vessels, both as regards winds, currents, etc., and course of voyage.

But the commerce of the Mississippi Valley requires largely increased facilities of ingress and egress at the mouths of the river, so that neither detention nor increased expense be incurred by vessels in crossing the bars.

The Government have happily taken hold of this great national highway, and, in view of its great importance, we are persuaded it will prosecute the work till all impediments and obstructions on the bars are removed. Encouraged by what the *Essayons* has already achieved, we are not without hope that the Government will render her more effective, by such improvements in her dredging capacity as the officers in charge, after due experience and mature deliberation, may, from time to time, recommend. The work to be done is not the work of a day, nor of a month, but of year in and year out ; steadily and perseveringly removing the deposit brought down by many thousand miles of river to the sea.

While acknowledging with unfeigned satisfaction what the Government has done and is doing for Pass-a-l'Outre, we would express the hope that it will not only continue the good work there, but that Southwest Pass may also receive a full share of effective dredging. The commerce of the valley requires more than one outlet ; and Southwest Pass, as well as Pass-a-l'Outre, even if thoroughly dredged and deepened, will not be more than enough when the great West, as well as the South, sends its produce this way to the markets of the world.

There is one more suggestion we would make in connection with the bars. It is well known that every year when the river is highest, and the produce and shipping business most active, the channels at the Passes get blocked up so that at times vessels are delayed for weeks in getting over the bar. That millions upon millions worth of property should be so detained, and thousands upon thousands of dollars for crew wages, provisions, etc., spent unnecessarily, is a great evil, but one that by judicious management may be reduced. We all know the danger and delay in forcing a passage from an overcrowded assembly. The principle is the same in placing vessels on the bar when the channel is blocked. Each vessel laid on causes a deposit to form to leeward, which in time blocks the channel for others, till the passage becomes impracticable, and operations have to be suspended until an easterly or southeasterly wind gives a high stage of water and enables towboats to take the vessels over. Such has been the experience hitherto, and it is likely so to continue as long as no authoritative regulations exist on the subject. The shipmaster is anxious to have his vessel taken out or in. The towboat captain is willing to accommodate him, and so, in their eagerness, the bar is blocked sooner and much worse than it would otherwise be.

If the Government, recognizing the river as a national highway, has set itself resolutely to clear out these bars, it certainly ought not to permit the channels to be blocked by the indiscriminate placing of heavy draft vessels on the bar. It is

a duty it owes to itself, and to the work it has undertaken, to establish and enforce such regulations as will facilitate the outgoing and ingoing vessels to the utmost possible extent, without doing injustice to any.

The whole work is happily in its hands, and in view of its magnitude, and the great interests at stake, it is important that the Government carry it forward under officers directly responsible to itself for the diligent and faithful performance of their duties. All past experience shows the uncertainty of the channels if left to themselves. How they will fill up here, and wash out there, unless dredging be constantly carried on. Hence contract after contract has been given to private parties who have, with unvarying success, performed service on the bars. Now the Government has taken hold of the work as a national enterprise, and has built the Essayons as an experiment, putting her in charge of competent officers, who have been faithfully and diligently at work on Pass-a-l'Ouvre. We have, therefore, good hope that, encouraged by what it has already done, it will go forward steadily and perseveringly, till at both passes it has made the channels deep enough for all vessels that may come.

Your deputation, before closing their report, desire to make special acknowledgment of the many obligations they are under to Collector Casey, of the port, for the facilities extended to them in examining the Passes. All of which is respectfully submitted.

G. L. LAUGHLAND,

H. BONNABEL.

After reading the report, Mr. Laughland offered in connection therewith the following resolution, which, with the report, was unanimously adopted:

The Chamber respectfully recommend the Government to take such steps as may be necessary to prevent the channels from being blocked by more than one vessel being placed on the bar at a time.

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR SIX MONTHS, FROM JANUARY 1, 1869.

ENTERED FOR CONSUMPTION.

	1867.	1868.	1869.
Manufactures of Wool.....	\$7,656,231	\$6,241,814	\$8,105,721
.. of Cotton.....	6,255,394	5,261,400	8,129,502
.. of Silk.....	5,809,881	8,073,446	10,430,224
.. of Flax.....	4,577,547	4,076,111	5,307,990
Miscellaneous Dry Goods.....	3,155,967	2,958,924	3,551,341
Total entered for consumption...	\$27,455,020	\$26,617,695	\$35,524,778

WITHDRAWN FROM WAREHOUSE.

	1867.	1868.	1869.
Manufactures of Wool.....	9,122,884	\$4,991,076	\$5,031,417
.. of Cotton.....	4,839,569	2,714,106	2,421,681
.. of Silk.....	4,167,255	2,045,863	2,114,180
.. of Flax.....	4,227,387	2,801,280	2,607,644
Miscellaneous Dry Goods.....	903,084	1,056,231	773,151
Total withdrawn from warehouse.	\$23,260,179	\$13,608,556	\$12,948,073
Add entered consumption.....	27,455,020	26,617,695	35,524,778
Total thrown on the market.....	\$50,715,199	\$40,226,251	\$48,472,851

ENTERED FOR WAREHOUSE.

	1867	1868	1869
Manufactures of Wool.....	\$8,260,469	\$4,632,877	\$5,428,238
.. of Cotton	4,171,062	2,097,363	2,567,462
.. of Silk.....	3,285,462	1,766,438	2,415,564
.. of Flax.....	2,709,387	1,762,827	2,868,123
Miscellaneous Dry Goods.....	1,017,885	1,012,624	679,667
Total entered warehouse.....	\$19,444,265	\$11,272,129	\$13,959,054
Add entered consumption.....	27,455,020	26,617,695	35,524,778
Total entered port.....	\$46,899,285	\$37,889,824	\$49,483,832

The import movement each month for four years, ending June 30 in each year, is given below :

	1866-7.	1867-8.	1868-9.
July.....	\$ 7,226,233	\$10,727,463	\$6,532,575
August.....	13,462,212	14,970,338	12,608,019
September.....	11,198,257	9,175,675	7,351,223
October.....	12,187,332	8,485,550	5,382,793
November.....	12,687,947	7,259,236	4,397,398
December.....	10,578,991	5,989,731	3,032,350
January.....	15,769,091	11,928,872	5,119,359
February.....	16,701,578	9,786,615	8,574,770
March.....	15,833,273	10,227,579	9,361,654
April.....	7,336,564	5,274,455	4,826,418
May.....	7,299,112	5,436,451	5,825,994
June.....	6,775,244	4,245,313	4,181,629
	\$137,055,834	\$103,407,278	\$77,254,182

It may be convenient for some of our readers to have in a single line the comparative value of each class of goods, and we add it as a final recapitulation of the foregoing tables :

	1866-7.	1867-8.	1868-9.
Manufactures of Wool.....	\$39,988,642	\$26,321,824	\$28,406,704
.. of Cotton.....	18,415,997	12,733,201	16,899,202
.. of Silk.....	19,532,125	19,310,358	24,714,705
.. of Flax.....	16,701,783	11,501,565	14,838,332
Miscellaneous Dry Goods.....	8,768,731	7,387,234	7,640,899
Total imports.....	\$103,407,278	\$77,254,182	\$92,499,842

DIRECT TRADE WITH THE WORLD—LIVERPOOL STEAMERS AT ST. LOUIS.

At a meeting of the St. Louis Board of Trade, Monday, 9th June, the following resolution was presented and unanimously adopted :

" *Resolved*, That a sufficient sum be appropriated by the Board of Trade of the city of St. Louis, in connection with the Union Merchants' Exchange, to defray the expenses of bringing a Liverpool steamer to St. Louis, via New Orleans, and loading her in bulk to a depth of twelve feet with grain, for a through cargo from St. Louis to Liverpool, England; and that the river pilots of the Mississippi river be requested to pilot such vessel from New Orleans to St. Louis and back free of charge. Furthermore, that said vessel be loaded with a cargo direct from Liverpool to St. Louis."

Mr. B. R. Pegram presented a paper to show how much could be saved to shippers in one trip :

Price up and return, \$250 per day for ten days.....	\$2,500
800 tons freight to St. Louis at four dollars per ton.....	3,200
1200 tons freight down trip at two dollars per ton.....	2,400
Transfer of eight hundred tons, drayage, commission, etc.....	800
Expenses saved of not reshipping cargo at New Orleans at one dollar per ton..	1,200
Saving in two hundred tons coal to go from New Orleans to New York, at two dollars twenty-five cents.....	450
Total.....	*\$7,950

He goes on to say :

"I have here estimated the freight both ways at one dollar per ton less than present prices, and have said nothing about port charges, which all admit are only about one-half as great in St. Louis as in New Orleans. But even were the port charges as much here as in New Orleans, it will be seen by above figures that a propeller would make a profit of over five thousand dollars by extending her trip to St. Louis, instead of discharging her freight in New Orleans."

Mr. Pegram adds :

"The grain Association will fail of its original mark if we rely solely on barge transportation to the seaboard, or to a point where we meet sea-going vessels. Bring New Orleans up here to St. Louis, by making this the point of departure for our grain ships, freighted for the Atlantic seaboard and for Europe. On their return they will bring to us merchandise of all descriptions, and lay it down on our wharf here, to be assessed by the custom-house officer, and duty paid ready for distribution, for all the Missouri Valley north and west of us. Cuba and Brazil will send us coffee and fruits to exchange for grain, flour, bacon, lard and agricultural implements. The seaboard cities will follow suit, and St. Louis will become what the great river on which she sits designed she should be—the great exporting and importing centre of the Mississippi Valley.

The St. Louis *Republican* has this on the subject.

"The late Grain Movement Association have found two difficulties—one at the north of us—in the railroads combining with the present boating interest there to make equal rates on the river to the railroad ; and the other at the mouth of the river, in a necessity of towage to sailing vessels, which entails the enormous expense of ten to eleven dollars per ton on the vessel. And we are glad to see our people not discouraged by obstacles, but proceeding thoughtfully and determinedly to obviate all obstacles ; and with thought and determination they will succeed, not only in the cheap carriage of grain, but in further advantages to the valley in iron manufacture and ocean commerce, which we shall endeavor to show.

"The same depth of water which prevails at the bars at the mouth of the Mississippi also obtains in the river up to Cairo, and, for certain parts of the year, up to the mouth of the Missouri, and the vessel that can pass the bar of the Belize can, with steam, load and unload as high up the river as the same depth of water at the bar obtains, and the steam-propelled vessel will soon be at our command on the river, either here or by our railroads to Belmont and Cairo, or by our barges.

"But if the vessel thus loads, she is not necessitated to unload at New Orleans ; she can make her voyage to South America, the West Indies and Gulf, the Atlantic coast and even to Europe—and time, climatic influence, and expense all reduced by it ; and our steamboat captains, who have the peculiar advantage of knowing the river navigation and can easily make themselves sea navigators, assert, and are preparing to prove, that the iron propeller, drawing twelve to fifteen feet of water when loaded, can be made to make these voyages, and open the direct trade, which will export with economy and also import more cheaply for the benefit of the cargo both in and out.

"This iron propeller will be built on our river, although at Wilmington, Delaware, iron vessels are said to be now building as cheap as on the Clyde in Scotland, and therefore may lead to the experiment ; but we are preparing for this in our iron furnaces now erecting on the river, and we can well see in this new feature of commerce a field for them and their accompaniments, rolling mill, etc.,

*There is an apparent error in the addition.

and a future home field for labor and agriculture exceeding in economies any section of the world.

"For the difficulty at the North, iron barges of light draft of water and tugs will add to the iron business in the future, and we offer for the present, as well as the future, a field to the Ohio river tugs and barges which will be serviceable to them as well as to ourselves."

TAXES ON SUGAR, TEA, AND COFFEE.

In 1868 there were 30,500,000 pounds of tea imported into this country. The duty upon it was about thirty cents a pound, which would be \$10,000,000. In addition there was a tariff of twenty-five per cent. in value, which would be equal to \$5,000,000 more. The total annual tea duty is \$15,000,000. The taxes upon tea are more than equal to the cost of it in China, with the exportation from there added. When a person buys a pound of tea, half of the price goes to the merchant, and half to the Government.

We imported last year 250,000,000 pounds of coffee. The duty, at 5 cents per pound, amounted to \$12,500,000. We also imported about 200,000,000 pounds of sugar in 1868. The duty was 4 cents a pound, and amounted in the aggregate to \$8,000,000. Thus, upon tea, coffee and sugar the people of the United States are taxed, through the custom-house alone \$35,000,000. This is equal to nearly \$50,000,000 in greenbacks. If the Government would abolish the National Banks, call in their circulation, and issue greenbacks in their stead, it would save more than half of this oppressive tax. Those who are in favor of cheaper tea, coffee and sugar, should insist upon the abolition of National Banks, and the supplanting of their notes by greenbacks. Then, with that saving of \$35,000,000, we could admit tea, coffee and sugar free of duty, with but little loss to the revenue.—*Cincinnati Enquirer*.

BREADSTUFFS.

The receipts of flour and grain at the Lake ports from the 1st of January to the 1st of July, for the last three years, have been as follows:

	1869.	1868.	1867.
Flour, barrels.....	2,667,601	1,626,122	1,305,079
Wheat, bushels.....	15,627,681	7,838,405	4,479,626
Corn	15,197,548	16,590,340	19,326,375
Oats	5,484,154	4,881,185	3,254,366
Barley	398,255	394,736	529,887
Rye	533,663	197,773	489,127
Total.....	37,241,301	29,902,439	28,079,381

NEW ORLEANS MARKETS.

COTTON—The movement in our leading staple for the past month has been moderate. The demand has been principally for the higher grades—of which the supply was light. The sales for the month have been only 8750 bales, at irregular

rates. By reference to our quotations, it will be seen that ordinary and good ordinary have fallen off $\frac{1}{4}$ @ $\frac{1}{2}$ c., and low middling and middling have advanced $\frac{1}{4}$ @ $\frac{1}{2}$ c. $\frac{1}{2}$ lb. The following table shows the rates here and in Liverpool June 25th, July 23d, and same time last year:

	June 25.	July 23.	Last Year.
Ordinary.....	26½@27½	26 @27	— @—
Good Ordinary.....	28½@29½	28 @29	27½@28
Low Middling.....	30 @30½	30 @31	28½@29
Middling.....	31 @31½	— @32½	— @30

LIVERPOOL QUOTATIONS.

Middling Uplands.....	— @12½	— @12½	— @10½
Middling Orleans.....	— @12½	— @13	10½@—

STATEMENT OF COTTON.

	Al. U. S. Ports.	N. O.
Stock on hand 1st September, 1868—bales.....	38,098	3,066
Receipts to 23d July, 1869.....	2,024,038	838,063
Receipts overland by manufacturers.....	247,000—2,271,038	
Taken by Northern manufacturers.....	858,655	842,320
Exported.....	1,422,626—2,281,281	838,511
Stock on hand July 23d.....	28,753	3,818

TOBACCO—Operations in this article have been only moderate during the month. The demand has been fair, but at rates rather below the views of holders. Prices for the lower grades have fallen off slightly. The market closes firm, at the following rates:

	Light.	Heavy.
Refused.....	7 @ 8 c.	7½@ 8½c.
Common L. af.....	8½@ 9½c.	9½@10½c.
Medium.....	9½@10½c.	10½@11½c.
Good.....	10 @11 c.	11 @12 c.
Fine.....	12 @14 c.	12 @15 c.
Choice Selections.....	14 @15 c.	15 @16 c.
Fine Wrappers.....	— @— c.	16 @25 c.

NEW ORLEANS TOBACCO STATEMENT.

Stock on hand September 1, 1868—hhds.....	2,183
Received since.....	25,567— 27,750
Taken for city consumption, etc.....	1,137
Exported.....	18,120— 19,257
Stock on hand not cleared, July 23d.....	8,493

SUGAR—There has been a slight improvement in the demand, and rates have somewhat stiffened. The receipts, which have been very light, met with ready sale at 11½c. $\frac{1}{2}$ lb. for Fair, 12½c. for Good Fair, 12½@13c. for Fully Fair, 14½c. for Yellow Clarified, 15½c. for White. City Refinery Sugars are selling at 14½@15½c. for Yellow Clarified, 15½@16½c. for White, and 17@17½c. for Crushed and Powdered. Cuba Sugar and molasses continue inactive. Louisiana Molasses has arrived in small lots and but little has been done in consequence. We quote: 60@64c. for Prime to Choice fermenting $\frac{1}{2}$ gallon. City Refinery Molasses is quoted at 60@80c. for reboiled and 90@ $\frac{1}{2}$ \$1 $\frac{1}{2}$ gallon for Golden Syrup.

HIDES.—The market is dull and inactive. Quotations are entirely nominal:

Steers 65 lb and upwards.....	8 @ 9½c.
Green Salted City Slaughter, Cows as they run.....	9 @ 9½c.
Kips 25 lb and under.....	12 @14 c.
Calf Skins each.....	\$1@ \$—
Dry Salted Hides.....	16 @18 c.
Country Dry Flint Hides.....	17½@18½c.
Texas Stretched.....	19 @20 c.
Mexican Dry.....	19 @20 c.
For damaged Hides only half price is obtained.	

The total shipments of hides and skins from this port during the year ending July 1st, 1869, amount to about 235,000, of which two-thirds were sent to Northern markets.

COFFEE—The market is quiet, and business is confined principally to job lots.

We quote from importers hands, Prime (Gold, duty paid) at 16½@17c., Good 15½@16c., Fair 15@15½c., ordinary 14½@15c., 7½ lb. The stock is now 13,321 bags in first hands and the dealers hold about 18,000 bags.

NEW ORLEANS ANNUAL COFFEE STATEMENT.

	Bags.	Bags.
Stock on hand July 1st, 1868.....	11,132	
Imported during the year ending July 1st, 1869.....	109,841	120,973
Taken for consumption during the year.....		103,267

Stock on hand July 1st, 1869..... 17,706

The stock of coffee on hand at the six principal ports in the United States, July 1st, 1869, was as follows :

	Bags.
New York.....	142,216
Baltimore.....	39,304
New Orleans.....	17,706
Savannah.....	4,200
Mobile.....	3,351
Boston.....	2,500

Total..... 209,277

PROVISIONS—are quiet but firm. Pork is held at \$34@ \$34 75 7½ barrel. Bacon is quoted at 15@15½c. 7½ lb for Shoulders; 18½c. for Clear Rib Sides, and 19½@19½c. for Clear Sides. Sugar cured Hams have been retailing at 21½@22 and 23c. 7½ lb as in quality.

The following table shows the stocks on hand in the various markets on the 1st July :

	Bbls. Pork.	Casks Bacon.	Bulk Meat and Bacon—lbs.
New Orleans.....	14,000	900	
Cincinnati.....	11,000		9,000,000
Chicago.....	11,000		4,000,000
St. Louis.....	12,000		11,000,000
New York.....	45,000		
Louisville.....	8,000		5,000,000
Interior cities of the West.....	5,000		3,000,000
Total.....	106,000		32,000,000
Last year same time.....	172,000		65,000,000
Short in stock this year.....	66,000		33,000,000

SALT—Demand fair ; prices easier ; \$2 30@\$2 35 for Coarse, \$2 35@2 40 for Fine; factory filled Fine \$2 50@2 55; large lots from warehouse 10@15c per sack less. Cargoes to arrive held at \$1 90@\$2 7½ sack. Turks Island scarce and in demand at 50@60c. 7½ bushel. Louisiana Rock Salt is in fair supply at \$20@\$22 per ton in sacks.

NEW ORLEANS CATTLE MARKET.

Texas Beeves, first quality, 7½ head.....	\$ 35	to 40
Texas Cattle, second quality, 7½ head.....	\$ 25	to 30
Texas Cattle, third quality, 7½ head.....	\$ 10	to 20
Hogs, Western, 7½ lb, gross.....	9to	11
Sheep, first quality, 7½ head.....	\$ 4	to 5
Sheep, second quality, 7½ head.....	\$ 3	to 3 50
Sheep, third quality, 7½ head.....	\$ —	to —
Milch Cows, choice, 7½ head.....	\$ 80	to 160
Milch Cows, 7½ head.....	\$ 50	to —
Texas Cows with calves.....	\$ —	to —
Yearlings 7½ head.....	\$ 8	to 12
Calves 7½ head.....	\$ 8	to 12

EDITORIAL.

ACKNOWLEDGMENTS.—Our acknowledgments are due to the Chamber of Commerce of New York for the eleventh annual report for the year 1868-9.

To G. M. Wickliffe, Esq., State Auditor, for his report for the year 1867.

To C. T. Pollard, Esq., for report of the President and Directors of the Mobile and Montgomery Railroad for 1869.

To Mme. Mace Lefranc, principal of the Institute St. Charles, for the opportunity of being present at the admirable exercises of her large and popular school.

To Mr. John F. Beaty, Secretary of the Board of Trade, for the eleventh annual statement of the trade and commerce of Chicago for the year ending 31st May, 1869, compiled by Mr. Beaty.

To the American News Company, New York, for a copy of the "Upper Mississippi River Guide."

To W. Barnes, Esq., Superintendent Insurance Department of New York, for a copy of the tenth annual report, 1869, of that department.

To W. H. Holcombe, M. D., for copies of "What is Homœopathy," "Report of Yellow Fever in 1867," and "How I Became a Homœopathist." Dr. Holcombe is a gentleman not only of the highest scientific acquirements in the allopathic schools of medicine, but a scholar of unusual acquirements. We know no more graceful writer, and no more able and impartial advocate of the doctrine which he avows.

To Messrs. Eyrich & Co., No. 130 Canal street, for "Jeremiah and his Lamentations," by the Rev. Harry Cowles; "The Lost Manuscript," by Gustave Freytag, translated by Mrs. Malcomb; "Appleton's Journal," No. 3; "Primary Truths of Religion," by Thos. M. Clark, D. D., L. L. D.; "The Dead Guest," all from the press of D. Appleton & Co., 91 and 94 Grand street, New York; "Sights and Sensations in France, Germany, and Switzerland," Loomis' Elements of Astronomy," "The Newcomes," by Wm. Makepeace Thackeray; "My Daughter Elinor," a novel; "Stretton," a novel, by Henry Kingsly, all from the press of Harper Brothers, publishers, Franklin Square, New York.

RAILROAD COMPANIES are respectfully reminded that their annual reports may be advantageously sent to the REVIEW office, as one of its chief objects is to aid in promoting the internal commerce of the country.

PERSONS ordering goods of our advertisers will confer a favor by stating that they saw the advertisement in our Southern and Western Business Directory. In return we will attend to any commission of inquiry or purchase without charge.

AS DEBOW'S NEW ORLEANS REVIEW is the medium of advertising various collegiate and academical institutions throughout the South, the editor will take pleasure in giving applicants any information in regard to the terms, course of instruction, with letters of introduction to the principals who conduct these institutions.

"XIX CENTURY."—We are in receipt of the July number of this work, an illustrated monthly magazine, published in Charleston, S. C., at \$3 50 per annum, single copies, 35 cents.

SOUTHERN MAGAZINE FOR JULY.—We welcome this co-laborer in the field of Southern literature. We say this sincerely, because the NEW ORLEANS REVIEW cannot become a medium for the exuberant overflow of Southern genius, without forfeiting in some degree its graver and more responsible character as a representative of the interests of the South. It may, therefore, gladly accept the aid of an ally to whom may be referred for publication many of the excellent contributions which it gives us pain to decline and which it is impossible we should publish.

THE MERCHANTS, AND BANKERS' ALMANAC FOR 1869.—This work was issued in January 1869, containing a list of 1650 national banks; 300 State banks; 1400 private bankers in the United States; banks and bankers in Canada; 1200 bankers and brokers in New York city, including names of members of the New York Stock Exchange, the Open Board of Brokers, the Gold Board and the Mining Board. Annual reports of 1868 on banks, coinage, and ninety staple articles; capital, circulation and profits of each bank in New York city. List of banks and bankers in England, Scotland, Ireland, Europe, etc. List of 400 savings banks in New England, New York etc.; deposits in each. Summary view of the annual production of gold and silver throughout the world. The monthly prices for forty years, at New York, of the following articles: Bar iron, sheet iron, pig iron, pig copper, anthracite coal, coffee, cotton, wool, wheat, rye, corn, oats, hops, molasses, sugar, pork. Also the monthly prices of ninety staple articles at New York, 1868. Also a list, recently compiled, of the marine, fire, and life insurance companies in the United States (850 in number,) with the names of president and secretary of each, and the capital (or assets) of each in 1867. The daily price of gold at New York, 1863 to 1868; alphabetical list of 2000 cashiers, and engravings of new bank buildings. The third edition issued in June, 1869, one volume octavo, price two dollars. Address, "Bankers' Magazine," P. O. Box 4574, New York.

PERSONAL.—We received a call from Mr. Tye Kim Orr, a native of China, who has been for two years a resident at Donaldsonville, La. He is an intelligent young man, speaking the English language, and converted to the Christian belief. He was invited by one of our prominent citizens to accompany him to the Memphis Labor Convention. He contributed greatly to the information of that body, and may be designated as one of the agents to visit China for the purpose of encouraging immigration. He informs us that large classes of his countrymen are skilful in the manipulation of thread and would make good operatives in our cotton factories.

PHYSICIANS RECOMMEND IT.—Macon, Ga., Dec, 23, 1868.—Messrs. Zeilin and Co.—Gentlemen: I have used the Simmons Liver Regulator in my family, and also in my regular practice, and have found it a most valuable and satisfactory medicine, and believe if it was used by the profession it would be of service in very many cases. I know very much of its component parts, and can certify of its medical qualities and perfect harmlessness.

B. F. GRIGGS, M. D.

THE MISSISSIPPI AND MEXICAN GULF SHIP CANAL.—We have been favored by Dr. J. G. Noyes with a photographic copy of a map of this great work, of which he is the chief executive officer, now in progress of completion, which is destined to give us ten feet of water communication between the Mississippi and Lake Borgne, and thence into deep water. One dredge boat is at work, and four others will soon be. Two of them are being built on the spot, and the machinery for the others has been contracted for at Chicago.

DEATH OF PROFESSOR VALLAS.—The Rev. Anthony Vallas, Ph. D., who was buried yesterday, was a clergyman of the Anglican Communion, with which he united himself in 1855, being previously a minister of the Reformed Church of his native country, Hungary, in which he had attained high honors as a professor. He was a profound and accurate scholar, and was formerly Professor of Mathematics in the State Seminary, and afterwards in the Normal School in this city. His knowledge of mathematics, and his powers of accuracy as a calculator, would have procured him, in the regions where colleges are found, much high positions; but his modesty and retiring habits kept him from seeking them. He leaves five children, three boys and two girls, who are both motherless and fatherless, and with no relatives in this country. But they will assuredly find friends among those who honored and revered their father. —*New Orleans Picayune*, July 21st.

We may add to this that Professor Vallas had interested himself deeply in what we deem the most important subject to the South—the establishment of polytechnic schools. To this question he had given much attention, but being in advance of the necessity for such institutions, he has died just when his knowledge would have been most useful for the country of his adoption. We add our expressions of regret for the death of such a man at such a time, and must console ourselves for the misfortune of his loss by an appreciation of his labors.

IRON COTTON TIES.—Some twenty years ago there appeared in the pages of the *REVIEW* a demonstration by a commission merchant of much experience and authority that iron bands would never answer to combine cotton in bale. To the confusion of prophecy, however, our friends, Messrs Bartlett & Rayne, general agents for the sale of the Arrow tie, at 43 Carondelet street, inform us that they are so crowded with orders that they cannot supply the planters with all that they require. They are shipping all rail into the interior of Alabama, and Mississippi, and this is another innovation upon old ideas. It is, no doubt, of great advantage to these agents that they are represented by a gentleman, formerly of the South, but now residing in Liverpool, who has control of the best and most extensive rolling mills in the world, for the manufacture of these popular ties of the very best quality of English iron.

THE UNIVERSITY OF VIRGINIA.—Very fortunately for the South, the invading army spared this invaluable institution to found anew the renown and prosperity of the Southern States. It has risen erect since the passage of the hurricane, and flourishes with renewed verdure. The schools are conducted by professors eminent for their virtues and their learning. The patrons of the institution are now convinced that education is an inheritance which even civil war cannot confiscate. Nearly five hundred students throng its portals, comprising representatives from Southern, Western, and some Northern States, and even numbering some from Spanish America. Referring to the demands of the age and the exigency, the University has constituted, in addition to its professional, literary

end scientific schools, a department of mathematics applied to civil engineering and other practical arts, as also a professorship of industrial and agricultural chemistry. This system, perfected according to the examples of the best European institutions, presents a course of study adequate to utilize all the mental intellect of the South. We compute the proportion of youth fit for the professions and for general literature at twenty per cent. of the whole number educated. The other eighty per cent. may be even more useful as navigators, engineers, as miners, and in every department of active usefulness. We cannot refrain from extracting the following abstract of the subject of practical instruction in analytical and industrial chemistry :

Amongst the more prominent subjects discussed are : The production of materials of very general application, including the metallurgy of iron, copper, lead, zinc, tin, silver, gold, etc. ; the preparation and properties of alloys, and the process of electro-metallurgy, the manufacture upon the large scale of acids, alkalies, salts, glass, and porcelain ; the production and preservation of food, including the chemistry of agriculture, the processes of bread making, wine making, brewing and distilling, the manufacture of sugar and vinegar, the curing of meat, the examination of potable water, etc. ; chemical arts relating to clothing, such as bleaching, dyeing, calico printing, tanning and the preparation of Indian rubber ; the chemistry of those arts which afford us shelter, embracing the examination of building materials, lime burning, the manufacture of mortar and cements, the explosive agents used in blasting, as gunpowder, gun cotton, nitroglycerine, etc., paints and varnishes, disinfecting materials, etc. ; heating and ventilation, the different kinds of fuel and modes of burning them ; illumination by artificial means, candles, lamps, the preparation of petroleum, the manufacture of illuminating gas, matches ; the chemistry of washing, the preparation of soap, starch and perfumes ; the chemical relations of printing and writing, the manufacture of paper, ink, artists' colors, photographic materials, etc.

The lectures are illustrated by suitable experiments, and by such specimens, models, drawings, etc., as the various subjects require.

A full course of instruction in practical chemistry will include the qualitative and quantitative analysis of ores, soils, manure, and technical products. Large orders have been sent to England, France, and Germany for all necessary apparatus for chemicals, minerals, models, etc., and for specimens illustrating the various arts and manufactures as practiced on the largest scale. These are now arriving, and the University of Virginia will be inferior in material preparations for instruction to no institution of learning in America. This course of instruction will dignify these practical professions with the degrees of Civil Engineer, Mining Engineer, and Bachelor of Science. To secure this honor the students must graduate in pure mathematics, applied mathematics, in mineralogy, geology, chemistry, and applied chemistry. The effect of even a few hundred young men highly educated on these subjects upon the material prosperity and political freedom of the South cannot be computed.

Since the University of Virginia has thus illustrated its capacity to bestow the highest grade of classical, scientific and practical education, the Southern people should remember that its halls are open for their patronage. The actual expenses are but three hundred and sixty dollars per annum. It is situated in a high and healthy locality, surrounded by a moral and intelligent population, and is accessible by railroad from every quarter of the Union. Having a personal acquaintance with the members of the faculty, and having been furnished with the terms and course of instruction, it will give us pleasure to answer any inquiries which may be made us on the subject.

DEBOW'S

SOUTHERN AND WESTERN BUSINESS DIRECTORY.

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TO ADVERTISERS.—We have respectfully to remind merchants that De Bow's Southern and Western Directory is a cheap and effective medium for coming before the public. It is an established paper which goes chiefly to Southern and Western readers. It thus differs from other directories, because it repeats the advertisement twelve times a year, and thus goes to a large extent into many hands. The price is reasonable, being \$150 per annum, per page, with proportional reduction of price as to space. One-fourth is payable in advance. We are printing and publishing the Review in New Orleans, and solicit the patronage of the merchants to the extent of their interest.

FOR SALE.—A copy of DEBOW'S REVIEW from the first number to the year 1867. It is well bound and in perfect condition. Price \$250. Apply at this office, or to
Mh—tf J. W. AINGER, Box 5236, New York.